THE YOUNG LADIES SCHOOL of ARTS.

CONTAINING

A GREAT VARIETY

OF

PRACTICAL RECEIPTS,

IN

GUM-FLOWERS, § COSMETICS, § JAMMS,
FILLIGREE, § JELLIES, § PICKLES,
JAPANNING, § PRESERVES, § CANDYING,
SHELL-WORK, § CAKES, § MADE WINES,
GILDING, § CORDIALS, § CLEAR
PAINTING, § CREAMS, § STARCHING, &c.

TOGETHER WITH

DIRECTIONS

For *breeding* CANARY BIRDS, and *breeding, nurſing*, and *ordering* of the SILK-WORM.

Alſo a great many *CURIOUS RECEIPTS*, both uſeful and entertaining, never before publiſhed.

By Mrs. HANNAH ROBERTSON.

The FOURTH EDITION, with large ADDITIONS.

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PREFACE.

THE reception this Book has met with from all ranks of people, has encouraged me to preſent the public with a fourth Edition. The YOUNG LADIES SCHOOL of ARTS was ſo well received in North-Britain, that three large impreſſions were bought up in a little time.

The following receipts are the reſult of many years experience, and will be found of infinite uſe to ſuch as are lovers of thoſe nice and ornamental arts, as they are calculated for the improvement or amuſement of Young Ladies, as well as thoſe that have the care of children's edu-

education, who, though properly inſtructed themſelves, will find it an advantage to have receipts at hand to put them in mind of what they formerly learnt.

As I am the mother of a number of children, and have of late years had the education of the youth of our ſex much under my care; I have not however followed the common plan for girls, not that I will pretend to ſay I am abſolutely in the right, or lay it down as a rule for others; but it appears to me to be moſt properly adapted to their tender years. Infancy is called the flowery path, we therefore ought to ſtrew it with flowers for them, and not to give them any taſk to ruffle or ſour their diſpoſitions, by putting into their hands things too abſtruſe and intricate for their tender capacities.

As ſoon as a girl has learned to read properly, ſhe is commonly put to the knitting of ſtockings, which is eaſily acquired: Then, the next thing is a piece of gauze put into her hands, called a ſampler, on which ſhe is to ſew letters and different figures, in doing which, ſhe

ſhe finds ſo much difficulty, that ſhe takes a real diſguſt at ſchool.

Nay, put the ſame piece of work into the hands of the mothers of thoſe children, notwithſtanding their having formerly learned it, it would prove a very irkſome taſk, and coſt them much trouble to execute it: And I am ſure was the teachers of thoſe children to be aſked, if they have as much trouble with any part of their education? and, if they are ingenuous, they will anſwer, No.

And all this mighty work is only to mark linen, which they might learn to do in a few days if of a proper age.

The Dutch who are a frugal and laborious people, ſet their children very early to make flowers, toys, &c. as they are ſenſible that thoſe things which children are moſt fond of, they will perform with the greateſt pleaſure and alacrity.

Their ſlender fingers likewiſe ſeem better adapted for fine work than thoſe of a more mature age: I know it by experience, that a child of eight or nine years of age, will learn to make flowers better

better than at any other time of life, and will learn their ſewing better at ten or eleven, than ſooner. I have often found that in teaching girls of the ſame age and equal capacity, where ſome of them have been ſet to plain work, ſome to embroidery, ſattin work, &c. they would not have been ſat to work above an hour, before they ſeemed heartily tired; when thoſe at flowers, &c. would have ſat three or four hours and left off with regret; and even thoſe whoſe genius ſeemed ſo bad as to appear void of any inclination to learn any thing, yet would have learned to make flowers as ſoon and well, as thoſe of the brighteſt parts; and by adorning themſelves with their own work have acquired a taſte for neatneſs, which before they ſeemed to pay no attention to.

I have therefore placed the receipts for making flowers, jappanning, &c. firſt. They are made as diſtinct as poſable, though practice is the only thing that can teach properly. Such Ladies fis have time to ſpare, may do a great many pretty things at a ſmall expence, for

for their own pleaſure, or the ornament of their houſes.

I would in a particular manner recommend the practice of thoſe arts, to young women in a middling ſtation of life; and in caſe of misfortunes happening, which is not uncommon, their knowledge in ſuch things would greatly make for their advantage, and be of real uſe to them. It is too well known, how ſmall a value is ſet on women's work, ſo that the cleverest at the needle can ſcarcely earn ſubſiſtence; but a knowledge of the different curious branches mentioned in this Treatiſe, will always find employment amongſt people of faſhion, and eſpecially in towns of trade and commerce, by which they might earn a tolerable living.

As moſt of the curious articles recommended in this Book, and which derive their beauty and perfections from the invention and ingenuity of our ſex, are generally brought from abroad at a great expence, and which can be made amongſt ourſelves at a much lower rate, by procuring proper ſhades of tiffany and leaf ſilk; they appear, when properly done,

as

as little inferior to thoſe brought from abroad. Would the Britiſh Ladies for a moment reflect what ſums of money are laid out for thoſe trifles, and at the ſame time, think, what number of young girls is in thoſe kingdoms, who would think themſelves happy in being employed in this way, whoſe hands ſeem ill adapted for more rugged taſks, and who in their infancy baſked in the ſunſhine beams of fortune, and by ſome ſudden reverſe, in which they had no hand, drove from affluence and happineſs, to wretchedneſs and want; I believe there are few Ladies, but upon mature reflection, will find ſome of this kind either amongſt their own kindred, or acquaintance; would it not then give an ineſtimable pleaſure to a feeling mind to have it in their power to adminiſter comfort to the diſtreſſed, by ſupplying them with the neceſſaries of life for their work; and then, being ſo employed, would not ſuffer them to brood over their misfortunes; and, a morſel purchaſed by their own labour, would to a generous mind, be more grateful and ſweeter, than that received by charity.

As

As I myſelf have been one of thoſe children of affliction, being in the early part of my life left with a number of infant children, whoſe daily ſubſiſtence I found moſt depended on the works of my hands, and who formerly was no ſtranger to the ſmiles of good Dame Fortune, whoſe favours are not to be depended on: I therefore can by my own experience, adviſe thoſe of my own ſex, who may be left in the ſame unhappy ſituation to exert their talents to procure bread for themſelves and infant family; and that Divine Being who feeds the young ravens, will bleſs their honeſt endeavours, and convey more real ſatisfaction and ſelf approbation, than fortune can give.

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Verses

VERSES applicable to the following TREATISE.

TO train the foliage o'er the ſnowy lawn;
To guide the pencil, turn the tuneful page;
To lend new flavour to the fruitful year,
And heighten nature's dainties, in their race
To rear their graces into ſecond life;
To give ſociety its higheſt taſte;
Well-order'd home man's beſt delight to make,
And by ſubmiſſive wiſdom, modeſt ſkill,
With ev'ry gentle care-eluding art,
To raiſe the virtues, animate the bliſs,
And ſweeten all the toils of human life:
This be the female dignity and praiſe.

THOMSON.

THE YOUNG LADIES SCHOOL OF ARTS.

PART I.

OF GUM FLOWERS.

THERE are a great variety of materials uſed in the making of gum flowers, whether they be intended for putting in jars, breaſt-flowers, pongs or wreaths: the moſt beautiful and neareſt to nature are thoſe made of the worm-bags: Have fine paper of all colours and ſhades ready ſtained for making ornamental flowers for jars; have green vellum at hand, made according to the receipt afterwards to be given: For cambrick of different red ſhades, the eaſieſt way is to give it to a ſilk-dyer, or

ſtain it yourſelf with ſea-flower; or you may take a piece of pink ſilk, and roll your white cambrick up in it, and put it to ſteep in ſtrong ſpirits; cloſe it up for two or three days, and you will have a beautiful red extracted from the ſilk; then take the cleareſt gum-arabic diſſolved in water; dip your cambrick in it; then lay it upon a clean pane of ſmooth glaſs, and hold it at a diſtance from the fire till it be dry; then pull it carefully off, and it will have a beautiful gloſs: you muſt have three different ſhades for a roſe, and place the darkeſt in the heart: be ſure to have either natural flowers or good patterns to copy after: you may alſo have pretty flowers of flaſs ſilk, by combing and gumming it on the glaſs, for variegating roſes, tulips, pinks, anemonies, ranunculas, polianthos, daiſies, auriculas, *&c.* Have always at hand good carmine and other colours, with clean pencils.

For yellow cambrick, it may be dyed either with a ſtrong tincture of ſaffron or turmerick; purples with logwood; blues with liquid blue or verditer.

COLOURS FOR GUM FLOWERS.

To make green vellum: Take fine white parchment, and waſh it in a cold lee, till it comes clear from it; then ſqueeze out the liquor; take diſtilled verdegreaſe ground with vinegar; add a little ſap-green to it; make it neither too thick nor too thin; then ſoak your parchment

parchment in this colour a whole night, and after that rince it in water; ſtretch it directly on a frame, and ſet it to dry; then take varniſh, lay it on both ſides, and ſet it in the ſun to dry; after this cut the parchment out of the frame into leaves, as large as you pleaſe, and lay them in a book under a preſs, to keep them ſtraight: This vellum is for making leaves for all ſorts of gum-flowers, breaſt-flowers, garlands, pongs, *&c.* and in the doing you may make it either lighter or darker as you pleaſe.

PAINTED RIBBONS.

Ribbons may be painted in various patterns; ſome in ſprigs, flowers, or a running pattern, according to fancy; others done from Dreſden patterns, all of one colour: only obſerve, that the ground muſt be laid over with ſtrong allum water, otherwiſe the colours will fly off.

TO MAKE FILLIGREE.

Filligree is a very pretty work, and, when executed with judgment, will laſt hundreds of years, and may be made to repreſent various figures, ſuch as beaſts, birds, houſes, flowers, trees, coats of arms, *&c.* The firſt thing proper to be done, is to ſtain paper fit for theſe purpoſes with the various colours you chuſe; ſuch as green done with ſap-green diſſolved; —yellow with gum-bouge;—a vermilion colour;—red with red ink;—blue with liquid

blue;—purple with the purple colours in a receipt among the paints. The beſt way to lay on the colours is to have your paper flat on a table, and the paint laid on, and ſmoothed over with your hand; when dry, let it be glazed over; then deliver it to a book-binder to be gilded and cut in very narrow ſlips; after which your own judgment, or a pattern, will direct you, whether you intend for picture or glaſs frames, boxes, *&c.* Let the wood they are made of be fir, as the pins with which the rolled up ſlips are faſtened, will not penetrate any other wood: take care not to let any of the glue fall on your work after the filligree is laid on, becauſe it will dim the gilding; and let the glue dry before you take it off the pins.

PONGS AND GARLANDS,

Are ſo various, that directions cannot be given here, but muſt be made either according to fancy or from patterns; only be ſure to have always dyed ſilk, ſtained paper, paints, ſilver'd wire purl, flats and ſpangles, froſting, ſhakers, and vellum, and feathers dyed of various colours.

TO MAKE VARNISH OF ANY COLOUR FOR DRESSING-BOXES, *&c.*

Take a gill of ſpirit of wine, and four ounces of red or black ſealing wax, or virgin wax, which you may make any colour you pleaſe: the

the red with vermilion; the green with verde-greaſe; blue with Pruſſian blue; and yellow with King's yellow: Pound your ſealing-wax fine, and ſearch it through a lawn ſieve; put it in a wide-mouth'd phial with the ſpirit of wine; let it ſtand within the air of the fire for forty-eight hours, and ſhake it often; then lay it on with a japanning-bruſh; when dry, lay on a ſecond, then a third, and it will be very pretty.

RECEIPTS FOR JAPANNING AND GILDING.

If you intend it for japanning, your wood muſt be plane-tree: take a pound or two of the ſhreds of white glove-leather; cover them with clean water, and let them ſoak a night; then put ſix quarts of water to the two pound, and boil them till the ſize be very ſtrong, and ſticks toy our fingers like glue; when your ſize is made, take white-lead or chalk; lead for japanning, and chalk for gilding; grind them very fine, with a little pure water, on a marble; then put ſome ſize to it; warm it over the fire, and ſtir it well; let it be the conſiſtence of a thick cream; then with a fine bruſh lay it over your wood, and let it thoroughly dry before you lay on another coat; this you muſt repeat twelve times; moiſten it all over with clear water, in order to ſmooth your ground; when dry, rub it over with Dutch ruſhes, or a piece of new linen cloth, till it look ſmooth and fine; then, with a hair pencil, lay it over with ſize-water, if for gilding; then take your

leaves of gold, and cut them on a leather cuſhion, and lay them on your work; and when dry, poliſh it with a tooth.

After your ground for a white japan is laid on as above, cut your prints, or flowers of your own painting; go over the backs of them with ſtrong gum water, or a paſte made of fine flour is rather better; then place them according to your fancy; but be ſure they be all ſtraight laid, and cloſe to the ground, to prevent their riſing; when thoroughly dry, take as much white ſpirit varniſh as will go over your work; be ſure to pour out no more than what is ſufficient at a time, as the remainder will turn tough and be uſeleſs; lay it on with a fine hair bruſh before a fire; but take care not to go too near the fire, elſe it will all bliſter and turn rough: repeat this twelve times; only each coat muſt be dry before you lay on another; and it will be as clear as a looking-glaſs: you may poliſh it with a little tripoli, if you chuſe it.

For black japan, take ivory-black.
For red, vermilion.
For blue, Pruſſian blue or verditer.
For crimſon, lake and carmine.
For yellow, King's yellow, mixed with white lead.
For green, diſtilled verdigreaſe; and order all as before directed.

TO

TO PAINT WITH MEZZOTINTO ON GLASS.

There can be no repreſentation ſo elegant as a picture done in this way, having a peculiar ſoftneſs not to be found in other paintings. Take what mezzotinto prints you chooſe, according to your taſte and fancy; cut off the margin, and lay it flat in a diſh with clear hot water; let it remain on the ſurface till it ſinks, then it is enough; when you take it out be careful not to break it, and daub it betwixt clean cloths or papers, that no water may appear, and yet the print be damp; then lay it, face uppermoſt, on a flat table; have ready a plate of pure crown glaſs, free from all ſpots or ſcratches; lay ſome Venice turpentine all over one ſide of it with a ſoft bruſh, and hold it to the fire a little, to make it run quite equal and thin; then let it fall gently on the print; then preſs it down gently, that the turpentine may ſtick to the picture; then preſs the print with your fingers from the middle towards the edges of the glaſs, that no bliſter may remain; then wet your print with a ſpunge of ſoft cloth, and the paper will peel off and leave only the impreſſion on the glaſs: when it is dry, take a pencil and wet it all over with oil of turpentine till it is quite tranſparent; and ſet it to dry, when it is fit for painting.

TO

TO CAST PICTURES WITH ISINGLASS.

Take what quantity you pleaſe of the fineſt iſinglaſs; cut it fine and cover it with brandy; cloſe it well, and let it ſoak all night; then put ſome clear water to it, and boil it on a gentle fire, till a drop of it is like a clear jelly; ſtrain it through a cloth, and put it in a cool place; when you are about caſting a picture, cut as much of the jelly as will cover your copper-plate; diſſolve it in a clean pipkin, and mix any of the following colours you chooſe with it.

For red, vermilion or carmine finely ground.
For blue, take liquid blue
For green, diſtilled verdigreaſe, finely ground.
For yellow, ſaffron ſteeped in fair water.
A gold colour is made with red and ſaffron yellow.

Gold, ſilver, or copper well ground, are to be mixed with the materials, and poured quickly over the plate; have your copper-plate clean, and pour your diſſolved iſinglaſs over it, but not too hot; be ſure the plate be all covered; ſet it in a moderate warm place to dry, and when thoroughly dry, with the thin blade of a knife lift it up from the plate.

On

On GROTTOS and SHELL-WORK.

See with what art each curious ſhell is made,
Here carv'd in fret-work, there with pearl inlaid:
What vivid ſtreaks th' enamel'd ſtones adorn,
Fair as the painting of the purple morn!
Yet ſtill, not half their charms can reach our eyes,
While thus confus'd the ſparkling chaos lies.
Doubly they'll pleaſe, when in your grotto plac'd,
They plainly ſpeak their fair diſpoſer's taſte,
Then glories yet unſeen ſhall o'er them riſe,
New order from your hand, new luſtre from your eyes.
How ſweet, how charming will appear the grot,
When by your art to full perfection brought!
Here verdant plants and blooming flowers will grow,
There bubbling currents thro' the ſhell-work flow.
Here coral mixt with ſhells of various dyes,
There poliſh'd ſtones will charm our wond'ring eyes.
Delightful bower of bliſs! ſecure retreat!
Fit for the Muſes and Statira's ſeat.

OF SHELLS, AND POLISHING THEM.

THE conchs of various ſorts and colours come from the Eaſt-Indies and Red Sea: the porcelains, caſſanders, the dolia, the buccinums, the cornets and the cylinders are all naturally poliſhed; but a great number of very curious ſhells, ſuch as the tiara, the plume, the rhombus, the onyx, the violet ſhell, the auris marina, the nautilus, the burgau, the limpits and aſſes ears, generally come from the ſea in a rough ſtate, ſome more incruſted than others, ſo that they require to be poliſhed up to let their beauties appear; and as a great many ladies have a taſte

taſte for curious ſhells, they will pleaſe to obſerve the following directions.

A ſhell which hath a ſmooth ſurface, and a natural dull poliſh, need only be rubbed with the hand, or with a piece of ſhamoy leather, with ſome tripoli or rot ſtone, and it will become a perfectly bright and fine poliſh.

A ſhell that is rough, foul, and cruſty, or covered with a tartareous coat, muſt be left a whole day ſteeping in hot water; when it has imbibed a large quantity of this, it is to be rubbed with rough emery on a ſtick, or with the blade of a knife, in order to get off the coat; after this it may be dipped in diluted aquafortis, ſpirit of ſalt, or any other acid; and after remaining a few moments in it, be again plunged into common water: this will greatly add to the ſpeed of the work; after this, it is to be well rubbed with linen cloths impregnated with common ſoap; and when by theſe ſeveral means it is made perfectly clean, the poliſhing is to be finiſhed with fine emery and a hair bruſh; if after this the ſhell, when dry, appears not to have ſo good a poliſh as was deſired, it muſt be rubbed over with a ſolution of gum arabic; and this will add greatly to its gloſs without doing it any ſort of injury; the gum water muſt not be too thick, and then it gives no ſenſible coat, only heightning the colours.

The white of an egg anſwers this purpoſe alſo very well, but is ſubject to turn yellow; if

if the ſhell has an epidermis, which will by no means admit the above method of poliſhing it, it is to be dipped ſeveral times in diluted aquafortis, that this may be eaten off; and then the ſhell is to be poliſhed in the uſual way with putty, fine emery, or tripoli, on the hair of a fine bruſh: when it is only a pellicle that hides the colours, the ſhells muſt be ſteeped in hot water, and after that the ſkin worked off by degrees with an old file.

This is the caſe with ſeveral of the cylinders, which have not the natural poliſh of the reſt.

When a ſhell is covered with a thick and greaſy epidermis, as is the caſe with ſeveral of the muſſels, and tellinæ, in this caſe, aquafortis will do no ſervice, as it will not touch the ſkin; then a rough bruſh and coarſe emery are to be uſed; and if this does not ſucceed, ſeal-ſkin, or, as the workmen call it, fiſh-ſkin, and pumice-ſtone are to be taken in to aſſiſt.

When a ſhell has a thick cruſt, which will not give way to any of theſe means, the only way left is to plunge it ſeveral times into ſtrong aquafortis, till the ſtubborn cruſt is fully eroded. The limpit, auris marina, the helmet ſhells, and ſeveral other ſpecies are of this kind, and muſt have this ſort of management; but as the deſign is to ſhew the hidden beauties under the cruſt, and not to deſtroy the natural beauty and poliſh of the inſide of the ſhell, the method of uſing the aquafortis muſt be this, a long piece of wax muſt be provided,

vided, and one end of it made perfectly to cover the whole mouth of the ſhell; the other end then will ſerve as a handle, and the mouth being ſtopped by the wax, the liquor cannot get into the inſide to ſpoil it; then there muſt be placed on a table, a veſſel full of aquafortis, and another filled with common water.

The ſhell is to be plunged into the aquafortis, and after remaining a few minutes in it, is to be taken out and plunged into the common water. The progreſs the aquafortis makes in eroding the ſurface, is then to be carefully obſerved every time it is taken out; the point of the ſhell, and any other tender parts, are to be covered with wax, to prevent the aquafortis from eating them away; and if there be any worm holes, they alſo muſt be ſtopped up with wax, otherwiſe the aquafortis would ſoon eat through thoſe places.

When the repeated dippings into the aquafortis ſhew that the coat is ſufficiently eaten away, then the ſhell is to be wrought carefully with fine emery and a bruſh; and when it is poliſhed as high as can be by this means, it muſt be wiped clean, and rubbed over with gum-water or the white of an egg. In this ſort of work, the operator muſt always have the caution to wear gloves, otherwiſe the leaſt touch of the aquafortis will burn the fingers and turn them yellow; and often, if it is not regarded, will eat off the ſkin and nails.

Theſe

Theſe are the methods to be uſed with ſhells, which require but a moderate quantity of the ſurface taken off; but there are others which require being ſcaled; ſo theſe muſt be delivered to the work-man to be done on the wheel.

The Perſian ſhell, jonquil, chama, the tortoiſe-ſhell, limpit, the tellinæ and cochleæ, and various other ſpecies, when poliſhed from their coarſe ſtate as they come out of the ſea, produce great variety of beauties, and are juſtly eſteemed by the curious.

FOR SHELL-WORK.

Various ſorts of flowers may be formed from ſhells: for this work the pureſt are the beſt, and they may be made up either from nature or patterns; and as few can purchaſe foreign ſhells, there may be very beautiful flowers made of our own country ſhells, which are found on the beach near Aberdeen, St. Andrews, and other places on the coaſt; even the coarſeſt ſhells may be made very pretty for grotto-work, by cleaning them with the ſpirit of ſalt, and varniſhing them afterwards with fine gum-arabic. As the ſhells of this country are generally white, to make them appear like the foreign, take chips of Braſil-wood, and ſteep it among ſtrong gum; then, with a fine pencil, do it over your ſhells, and they will be very clear and beautiful; do them in three different ſhades for roſes, always putting the darkeſt in the middle, with knotted yellow

ſilk for the hearts; roſes, auriculas, bloſſoms, anemonies, and polianthos, muſt be done with ſtrong gum upon cards; gilliflowers, tulips, narciſſus muſt be in wax, and huſks made of green vellum or paper; wire for ſtalks, covered with green ſilk, as the gum-flowers are.

Shell-flowers, when properly made, make very beautiful feſtoons, brackets, picture-frames, &c. As feſtoons require ſuch a quantity of leaves, and vellum being expenſive, you may uſe green paper.

ARTIFICIAL CORAL FOR GROTTO-WORK.

Take clear roſin diſſolved in a braſs pan; to one ounce add two drachms of fine vermilion; when you have ſtirred them well together, have your branches or twigs peeled and dried, and paint them over with a pencil while your compoſition is hot, and ſhape them in imitation of nature; the black thorn is propereſt for doing it on; then hold it over a gentle fire; turn it about, and it will make it all over ſmooth and even, as if it were poliſhed: you may make white coral with white lead, and black with lamb black: you may make a grotto to your taſte of theſe thing, with a variety of ſhells, pebbles, petrifactions, moſs, ore, and glaſs. The hill of Kinnoul, near Perth, produces a variety of pebbles, ſtones, and rock-chryſtal, which ſhoot up naturally like white ſugar-candy, and are very proper for making up the floor of a grotto, by laying a ſquare of red tyle, and filling up the next with pebbles of different colours.

DESCRIPTION

DESCRIPTION OF SOME CURIOUS SHELLS.

The following are reckoned the fineſt, and rareſt ſhells, viz. The PAPAL CROWN, which takes its name from its form, and which is all ſtreaked with red on a white ground.—The FEATHER, whoſe whiteneſs with its carnation ſtains, have an admirable effect.—The HEBRAICA, which, on a ground as white as ſnow, has ſpots as black as jet, much reſembling Hebrew characters.—The CHINESE SNAIL, which has a green and black embroidery on a dark brown ground.—The CLOTH of GOLD, remarkable for an admirable tiſſue of yellow, brown and black.—The CLOTH of SILVER, which does not come behind that of Gold in beauty.—The LEOPARD, which is all ſpeckled.—The TIGER, whoſe ſpots exceed thoſe of the Leopard.—The HARTS-HORN, which has black ſtains on a white ground.—The PURSE, thus called from its figure; it is embroidered with three or four colours.—The SUN DIAL, the CATERPILLAR, both denominated from their forms.—And the NERITES, white NAUTILUS, LEPAS, LEPARIA, APPORAYS, TUBA, GALEA, &c. all exhibiting various beauties.

A GOOD STONE-GLUE OR CEMENT FOR GROTTO-WORK.

Take two parts of white roſin melted clear; add to it four parts of bees-wax; when melt-

ed together, add ſtone-flour of the ſtone you are to cement, two or three parts; then one part flour of ſulphur; incorporate all together over a gentle fire, and then knead it with your hands in warm water.

A DESCRIPTION OF SOME BEAUTIFUL SHELLS TO BE SEEN IN THE CABINETS AND GROTTOS OF THE CURIOUS.

The *Sea Trumpet* is, in its perfect ſtate, nine inches long, an inch and a half diameter at its mouth or irregular lip, and the opening at the ſmall end about half an inch: the ſurface is a beautiful brown, prettily ſpotted with white; and the pipe has fourteen annular ridges that are a little elevated, and of a fine purple colour.

The *Admiral* is vaſtly beautiful; a voluta two inches and a half long, and an inch in diameter at the head, from whence it decreaſes to a cone with an obtuſe point: the ground colour is the brighteſt elegant yellow, finer than that of Siena marble; and this ground ſo variegated with the brighteſt colours, that a little more than the third part of the ground is ſeen; broad faſciæ, the moſt charmingly veined ſurround it, and the clavicle is the moſt elegant of objects in colours, brightneſs and irregularities; there is a punctuated line of variations that runs in the centre of the yellow faſciæ, and is wonderfully pretty. This beautiful Eaſt Indian ſells at a great price.

The

The *Crown Imperial* is likewiſe very beautiful; the voluta is four inches long, two in diameter at the top, and its head adorned with a charming ſeries of fine tubercles pointed at the extremities: the ground is a clear pale, and near the head and extremity of the ſhell, two very beautiful zones run round; they are of the brighteſt yellow, in a manner the moſt elegant, and are variegated with black and white purple. It is an Eaſt Indian.

The *Hebrew Letter*, another voluta, is a fine curioſity; it is two inches in length, and an inch and a quarter in diameter at the top; it is a regular conic figure, and its exerted clavicle has ſeveral volutions: the ground is like the white of a fine pearl, and the body all over variegated with irregular marks of black, which have a near reſemblance of the Hebrew characters. This elegant ſhell is an Eaſt Indian.

The *White Voluta*, with brown, blue, and purple ſpots: this very elegant ſhell, whoſe ground is a charming white, is found on the coaſt of Guinea, from five to ſix inches in length, and its diameter at the head, often three inches: it tapers gradually, and at the extremity is large and obtuſe; its variegations in its ſpots are very beautiful, which are principally diſpoſed in many circles round the ſhell.

The *Butterfly* is a voluta the moſt elegant of this beautiful genus; its length is five inches in its perfection, and two and a half broad at the head; the body is an obtuſe cone; the

clavicle is pointed, and in ſeveral volutions; the ground is the fineſt yellow, and beautified all over with ſmall brown ſpots, in a regular and round ſeries: their variegations are exceeding pretty, and as this rare Eaſt Indian ſhell has, beſides theſe beauties, three charming bands round the body, which are formed of large ſpots of a deep brown, a pale brown and white, and reſemble the ſpots on the wings of butterflies; it is a beautiful ſpecies indeed. The animal that inhabits this ſhell is a limax.

The *Tulip Cylinder* is a very ſcarce and beautiful native of the Eaſt Indies, and, in its ſtate of perfection and brightneſs of colour, of great value: its form is cylindric, its length four inches, and its diameter two and a half at its greateſt increaſe; its clavicle has many volutions, and terminates in an obtuſe point: the ground colour is white, and its variegations blue and brown; they are thrown into irregular clouds in the moſt beautiful manner, and into ſome larger and ſmaller ſpots. The limax inhabits this fine ſhell.

The *Thorny Woodcock* is ventricoſe, and approaches to an oval figure; its length full grown is five inches, the clavicle ſhort, but its volutions diſtinct, and its roſtrum from the mouth twice the length of the reſt of the ſhell; this ſnout and the body have four ſeries of ſpines, generally an inch and a half long, pointed at the ends, and ſomewhat crooked;

crooked; the ſpines lye in a regular, longitudinal ſeries; the mouth is almoſt round, but the opening is continued in the form of a ſlit up the roſtrum: the colour of this American and extremely elegant ſhell, is a tawny yellow, with a fine mixture of a lively brown, and by bleaching on the coaſts, it gets many ſpots of white.

The beautiful *Harp* is a Chineſe, three inches and a half long, and two and a half in diameter: the ſhell is turned and inflated, and at the head largeſt; it has an oblong clavicle in ſeveral volutions, pointed at the extremity, and the other extreme is a ſhort roſtrum: the whole ſurface is ornamented with elevated ribs, that are about twice as thick as a ſtraw, and as diſtant from each other as the thickneſs of four ſtraws; the colour is a fine deep brown, variegated with white and a paler brown, in a manner ſurpriſingly beautiful.

The extremely elegant *Argus* is from the coaſt of Africa, and is ſometimes found in the Eaſt Indies; its length, in a ſtate of perfection, is four inches and a half, its diameter three; it is oblong and gibbous, has a wide mouth, and lips ſo continued beyond the verge, as to form at each extremity a broad and ſhort back: the colour is a fine pale yellow, and over the body are three brown faſciæ; but the whole ſurface, and theſe faſciæ, are ornamented with multitudes of the moſt beautiful round ſpots, which reſemble eyes in the wings

wings of the fineſt butterflies: the limax inhabits this charming ſhell; this creature is the ſea ſnail.

The *Concha* of *Venus* is three inches long and two and a half in diameter; the valves are convex, and in a longitudinal direction deeply ſtriated; the hindge at the prominent end is large and beautifully wrought. and the opening of the ſhell is covered with the moſt elegant wrinkled lips, of the moſt beautiful red colour, finely intermixed with white; theſe lips do not unite in the middle, but have ſlender and beautiful ſpines round about the truncated ends of the ſhell: the Shell of Venus is an American, and valued by the collectors at a high rate

But of all theſe curious ſhells, the *Hammer Oyſter* is moſt to be wondered at; it is the moſt extraordinary ſhell in the world; it reſembles a pick-axe with a very ſhort handle and a long head; the body of the ſhell is the place of the handle of the inſtrument, and is four inches and a half long, and one inch and a half in diameter; what anſwers for the head of the pick-axe, is ſeven inches long, and three-quarters of an inch in diameter; this head terminates at each end in a narrow obtuſe point, is uneven at the edges, irregular in its make, and lies croſs-ways to the body; yet the valves ſhut in the cloſeſt and moſt elegant manner; the edges are deeply ſurrounded and plated, and the lines run in irregular directions; the colour without

without is a fine mixture of brown and purple, and within a pearly white, with a tinge of purple. This rare ſhell is an Eaſt Indian, and whenever it appears at an auction, is rated very high; ſometimes one will give ten guineas.

TO MAKE GLASS JARS, AND OTHER PIECES OF ORNAMENT, LOOK LIKE CHINA.

After you have painted your figures, cut them out, ſo that none of the white remain; then take ſome thick gum-arabic; go over all your figures, and place them on your glaſs to your own taſte; let them ſtand to dry for twenty-four hours; then clean them well with a wet cloth betwixt the prints, and let them ſtand a few hours longer, leaſt the water ſhould move any of the edges; then take white wax, and flake-white, ground very fine, and melt them together: with a japanning-bruſh go over all your glaſs above the prints; done in this manner they will hold water: or you may boil iſinglaſs to a ſtrong jelly, and mix it up with white lead ground fine, and lay it on in the ſame manner; or you may do them with nut-oil and flake-white: For a Blue ground, do it with white wax and Pruſſian blue, ground fine; for Red, wax and vermilion, or carmine; for Green, wax and verdegreaſe; for a Chocolate colour, wax and burnt umber.

LANDSCAPES.

In drawing landſcapes, always expreſs a fair horizon, ſhewing the heavens cloudy or clear, more or leſs according to the occaſion; and if you expreſs the ſun, let it be either as riſing or ſetting, and as it were behind, or over ſome hill or mountain: the moon and ſtars are ſeldom or never expreſſed, unleſs it be in repreſentations of moon-light or twilight; becauſe all things are ſuppoſed to be ſeen by day.

Take great care to augment or leſſen every object, proportionably to it's diſtance from the eye; and alſo to expreſs them ſtronger or weaker. In delineating objects at a great diſtance, as 10, 20, or 30 miles off, when it is difficult to be diſcerned whether it be a temple, caſtle, houſe, or the like, be careful to expreſs them in the ſame faint and confuſed manner, as they really appear to the eye.

If the landſcapes are drawn in colours, the farther you go, the more you muſt heighten it with a thin and airy blue, to make it appear as if farther off, beginning at firſt with a dark green, and lightening it by degrees into a blue, according to the diſtance.

Let your landſcape be always conformable to the ſeaſon it is intended to repreſent: as if you intend it for a winter-piece, expreſs the felling of woods, ſliding on the ice, fowling, hunting of foxes in the ſnow; making the trees every where either naked, or loaden with ſnow,

ſnow, or an hoar-froſt; the earth bare without greenneſs, flowers or cattle; the air thick or heavy, the water frozen, with carts paſſing over it, boys ſliding on it, &c.

Let every ſite have its proper adjuncts or additional graces, as the farm-houſe, wind-mill, woods, cattle, travellers, ruins of temples, caſtles, and monuments; with a thouſand other things of the ſame kind, as they become properly parts of the view you intend to repreſent.

LIMNING,

Is the art of painting in water colours, and ſtands contra-diſtinguiſhed from painting, properly ſo called, which is done in oil colours.

In limning all the uſual colours are proper enough, excepting the white made of lime, which is only uſed in freſco; but the azure and ultra-marine muſt always be mixed up with ſize, or with gum, as the yolks of eggs always give yellow colours a greeniſh tincture.

But there are always applied two lays of hot ſize, before the colours, mixed even with ſize, are laid on: the compoſition made with eggs and the juice of the fig-tree, being only uſed for touching up and finiſhing, and to prevent the neceſſity of having a fire always at hand to keep the ſize hot; yet it is certain, that the ſize colours hold the beſt, and accordingly are always uſed in cartoons, &c. This ſize is made of ſhreds of leather.

The

The linen proper for painting on, ſhould be old, half worn and cloſs; this they ſtamp with white lead, or a fine plaiſter, beaten up with ſize, which, once dry, they go over with a layer of the ſame ſize.

The colours are all ground in water, each by itſelf, and, in proportion as they are required in working, are diluted with ſize-water. If the yolks of eggs are deſigned, they dilute them with water made of equal quantities of common water and vinegar, with the yolk, white, and ſhell of an egg, well beaten, and then with varniſh: this, however, is only to preſerve it from the wet; for the great advantage of limning conſiſts in its being without gloſs, that all its colours, then void of luſtre, may be ſeen in all kinds of lights, which colours in oil, or covered with varniſh cannot.

ON THE NATURE AND SIGNIFICATION OF COLOURS.

As Ladies who ſit for their pictures may be deſirous of knowing the nature and ſignification of colours, in order to the chooſing their drapery, they are as follows:

WHITE, ſignifies innocency, purity, truth, and integrity.

AZURE, ſignifies conſtancy.

VIOLET-COLOUR, ſignifies a religious mind.

PURPLE, ſignifies fortitude.

BLUE, ſignifies faith and love.

BLACK, wiſdom, ſobriety, and mourning.

RED,

RED, juſtice, virtue, and defence.
FLAME-COLOUR, beauty.
MAIDENS-BLUSH, envy.
CARNATION, craft, ſubtilty, and deceit.
GREEN, hope.
GRASS-GREEN, youth, and rejoicing.
YELLOW, jealouſy.
GOLD-COLOUR, avarice.
STRAW-COLOUR, plenty.
TAWNEY, forſaken.
WILLOW, forſaken.

OBSERVATIONS ON EMBROIDERY.

I remember in the early part of my life to have viſited a lady, who had the arms of her family embroidered with ſilver on blue damaſk, on the bottom of each of her drawing-room chairs, which ſhe eſteemed of more value than any other furniture ſhe was in poſſeſſion of.—There is ſcarce any work we read of ſo ancient as embroidery—in holy writ we find that the Almighty ordered the curtains of the tabernacle to be done with that work.—More than three thouſand years ago, at the ſiege of Troy, the breaſt-plates and ſhields of the warriors were made of leather, on which were embroidered, or painted, different devices: That of Hector's we are told was ſable, two lions combatant. It ſhould ſeem that from hence the term *coat of arms* has originated, as the embroidery was done on their outward coats, &c. which covered their arms, &c.

Alexander the Great who lived 348 years before Chriſt, bore a lion rampant, and cauſed his ſoldiers to bear the ſame alſo embroidered on their ſhields, as marks of their honourable atchievements.

Theſe ſigns, which we call arms, were originally conſidered as manifeſting, in ſome ſort, the quality of the bearer: and as they were of great dignity and eſtimation, ſo they were not beſtowed on the vulgar.——As needle-work was never more in faſhion, and as moſt families have their arms on their carriages, would it not be worthy the attention of the ladies to embroider furniture with the ſame, which with care would laſt many generations? There is yet in Scotland numbers of beds, chairs, &c. work'd by that unfortunate lady, Mary Queen of Scots, and her maids of honour, which are as freſh as if newly done. When I mention theſe things, I have in view people of fortune only; but even people in a middling ſituation, who live in the country, and have much leiſure, might employ themſelves agreeably and uſefully, either in working articles of dreſs, with ſilk or worſted, or in many pretty things to ornament their houſes. By what remains of works of this kind in ſeveral families, we may diſcover how much it was the taſte about half a century ago; nor can I account for its being neglected ſuch a number of years, unleſs it is by conſidering that girls from eight to twelve years of age were generally employed

in

in this kind of work, and often placed with ſchool-miſtreſſes who were ignorant of juſt proportion, and knew nothing of a proper diſtribution of light and ſhade; ſo that embroidery fell into diſrepute, as it rather hurt than pleaſed the eye: for there is nothing more common than to ſee in pieces of work of this kind, roſes, anemonies, auriculas, &c. all on one ſtalk or ſtem; and in the landſcape way, to ſee a butterfly as large as a bull.

Ladies who have not a genius for drawing or painting, may procure good patterns, and clap them on a pane of glaſs in the window, placing a ſheet of fine paper above it, and with a black lead pencil trace all the outlines, which done prick it with a fine needle, then place it on the ſilk or cloth you intend to draw; powder a little coal, or wood burnt to coal, very fine, put it in a piece of thin cloth, and pounce it thro' the holes of your pattern, and you will have the figure compleat; draw it with gunpowder beat fine and mixed with milk; as blue, &c. is difficult to waſh out.

OF EMBLEMS.

In pieces of work where large figures are requiſite ſuch as animals, vegetables, &c. it may be proper to conſider the emblematic ſenſe in which they are frequently uſed.

VEGETABLES.

The PALM-TREE is the emblem of victory, juſtice and peace,—for all victorious Princes in old times, returning from battle and mighty enterprizes, bore palms in their triumphs; and the Royal Pſalmiſt ſaith, "the righteous ſhall floriſh as the Palm-tree," which is to be underſtood for ever.

The OLIVE-TREE is an emblem of peace, concord, and obedience. The Dove brought a branch of this tree to Noah while in the Ark, as a token of peace and reconciliation between God and Man.

The LAUREL is an emblem of triumph and victory.

The OAK is an emblem of virtue, force, ſtrength, and long life.

The CYPRESS and PINE, (among the Egyptians) were the ſymbols of death and oblivion; becauſe when once cut or lopped, they never ſprout again.

The POMEGRANATE is a ſymbol of royalty, being crowned on the top; and alſo ſignifies amity.

The ORANGE is the ſymbol of diſſimulation.

A SHEAF of CORN denotes plenty, a love of hoſpitality, friendſhip, fortitude, and is a type of the reſurrection.

The ROSE, which is of great uſe in chaplets and garlands, the white being the emblem of purity and love, and the red of beauty and grace.

grace. White and red are beauty's chief elements.

The LILY is an emblem of purity and chaſtity; and the enſign of the bleſſed Virgin; alſo the ornament royal and princely flower in the crown of King Solomon; repreſenting love with perfect charity.

The TREFOIL is the leaf of an honey-ſuckle, and is an emblem of perpetuity, ſignifying that the juſt man ſhall never wither.

The PRIMROSE, of all other flowers brings good tidings to man, that the ſpring of the year is at hand.

OF BIRDS.

The SWAN is called Apollo's bird, not only for his colour, which is the emblem of ſincerity, but becauſe he is ſaid to deſpiſe death, as all good men ought to do; his ſtrength is ſaid to lie in his wings, and he ſingeth at his death, as the end of all calamities.

The DOVE is mild and meek, clean of kind, plenteous in increaſe, forgetful of wrongs, for when their young ones are taken from them they mourn not.

The PELICAN was of ſuch eſteem with the Egyptians that they held it as an hieroglyphick of the duties of parents to children, viz. education, inſtruction, and good example.

The SWALLOW is the meſſenger of good news, that the ſpring is at hand.

Pliny writes that the COCK is the royaleſt bird that is, for nature hath crowned him with a perpetual diadem to him and his poſterity for ever; and he will rather die than yield to his adverſary; for if he be vanquiſhed he ſhunneth the light and ſociety of men; but if he become victor, then he croweth as a teſtimony of his conqueſt.

The EAGLE is accounted the king of birds; and it is ſaid he eateth not his prey alone, but giveth part thereof unto other birds that follow him, whom he procures as his gueſts. It is remarked that the old Eagles make a proof of their young, by expoſing them againſt the ſun beams; and ſuch as cannot behold that brightneſs, are caſt forth as unworthy to be acknowledged their offspring.

The RAVEN is ſaid to delight ſo much in her own beauty, that when her young ones are hatched, ſhe will give them no meat till ſhe ſees that they are of her own colour; and Job aſking the queſtion, Who provided for the young Ravens? St. Auguſtine anſwered, That they were fed with the dew of heaven while they were naked.—The Raven is ſaid to have ſixty-four ſundry changes of his voice, and is very guileful, for he will both ſteal and hide, and is ſo far the Fox's friend, that he will fight his quarrels.

The

The four Evangeliſts are uſually repreſented with emblems, viz. St. Matthew with a child, as beginning his goſpel with the nativity of our Lord and Saviour. St. Mark with a Lion, as he begins his goſpel, with the voice of one crying in the wilderneſs St. Luke with a bullock, as he begins his goſpel with the birth of John the Baptiſt, whoſe father, being a High-prieſt, was accuſtomed to offer thoſe creatures. St. John with an Eagle on his head, he beginning his goſpel with the divinity of our Lord, ſoars higher than the three former, as an Eagle flies higher than any other bird.

There is nothing more common than for both Engliſh and Scotch, when abſent from their own country, to employ the Ladies in ſewing them croſſes, the St. George for England, and St. Andrew for Scotland. As many of my female readers may not underſtand the meaning of thoſe days being obſerved, the following account of them from an eminent author, will I doubt not, be acceptable.

THE MOST NOBLE AND ILLUSTRIOUS ORDER OF THE GEORGE AND GARTER.

If we conſider the nobleneſs of the perſonages that have been inrolled therein, it excells all other inſtitutions of honour in the world, and owes its origin, as is confeſſed

on

on all hands, to Edward King of England, and France; the chief occaſion being as follows. King Edward being a perſon of conſummate virtue, gave himſelf up to military affairs, making St. George the martyr, who was a man of great renown for chevalry, his patron; being engaged in war, for recovering his rights from France, to reſtore King Arthur's Round Table, and for that purpoſe invited hither the gallant ſpirits from abroad; to endear himſelf to whom, he, upon new-year's day, *anno dom.* 1344, iſſued out letters of protection for the ſafe going and returning of foreign Knights, to try their valour, at ſolemn Juſt, to be held at Windſor, on the 19th of January enſuing, where he provided a great ſupper to begin the ſolemnity, and then ordained this feſtival to be annually at Whitſuntide; for which purpoſe he erected a particular building in the caſtle, wherein he placed a table of 200 feet diameter, and thereat entertained the Knights at his own expence. About three years after he iſſued out a Garter for a ſignal of a battle that was crowned with ſucceſs, (which is conceived to be the battle of Creſſey) where he took the French King priſoner, and brought him to England: on ſo remarkable a victory, he took occaſion to inſtitute this order, giving the Garter pre-eminence amongſt its enſigns, whence the ſelect number, whom he incorporated into a fraternity, were ſtyled Eſquires, viz. Knights of the Garter,

ter, an order of companionſhip, illuſtrated with eight Emperors of Germany, three Kings of Spain, five Kings of France, two Kings of Scotland, five Kings of Denmark, two Kings of Portugal, one King of Poland, two Kings of Naples, and one King of Arragon; Princes, Dukes, Earls, Lords, not to be numbered.

The habit of this moſt noble order of the George and Garter, which are eminently diſtinguiſhable and magnificent, conſiſts of theſe particulars, viz. Garter, hood, mantle, ſurcoat, George and collar; the firſt four were aſſigned by the founder, and the George and collar, by King Henry the Eighth; and all thoſe together are called the whole habit or enſigns of the order.

The Royal Garter challengeth the pre-eminence, by reaſon of the noble order from which it is denominated; it is the firſt part of the habit preſented to foreign Princes, and abſent Knights, who, and all other Knights elect, are therewith firſt adorned, and it is of ſuch great honour and grandeur, that by the bare inveſture with this noble enſign, the Knights are eſteemed companions of the greateſt military order in the world.

This noble enſign, the Garter, which is worn on the left leg, between the knee and calf, was ſo inſtituted by the founder, at the erection of the order, and was to put them in mind that as by their order, they were joined in a firm league of amity and concord, ſo by their

their Garter, as by a faſt tye of affection, they were obliged to love one another: and now, leaſt this ſtrict combination might ſeem to have any other aim or end, than what was honourable and juſt; as to the King's obtaining his kingdom of France, &c. he cauſed to be enamelled on the ſaid Garter this motto, *Honi ſoit qui mal y penſe*, retorting ſhame upon him that ſhould dare to think amiſs of ſo juſt an enterprize; and ſignifying that the magnanimity and bravery of thoſe Knights, whom he had elected into this order, was ſuch as would impower and inable them to maintain the quarrel againſt all that thought ill of them.

The materials whereof the Garter was compoſed for King Charles the Second, were blue velvet, bordered with gold wire, the letters of the motto, and the ſtops, roſe and table diamonds (the whole containing 250); the hinge of the buckler was gold, whereon was the Sovereign's picture to the breaſt, crowned with a laurel; on the backſide of the pendent was engraved St. George on horſeback incountering a Dragon.

When the Sovereign deſigns to elect a companion into this moſt illuſtrious order, the Chancellor belonging to the ſaid order, draws up the letter, which paſſing both under the Sovereign's ſign manual, and the ſignet of the order, is ſent to the perſon by Garter, Principal King at Arms, and is in this manner, or to the ſame effect.

"We

"We, with the companions of our moſt noble order of the Garter, aſſembled in chapter, holden this preſent day, at our caſtle of Windſor, conſidering the virtuous fidelity you have ſhewn, and the honourable exploits you have done in our ſervice, by vindicating, and maintaining our juſt rights, &c. have elected and choſen you one of the companions of our order, therefore we require you to make your ſpeedy repair unto us, to receive the enſigns thereof, and be ready for your inſtallation, upon the day of this preſent month, &c."

The Garter, which as aforeſaid, is of blue velvet, bordered with gold, (having commonly the motto of the ſame) is buckled upon the leg at the time of the election, with this ceremony.

"To the honour of God omnipotent, and in memorial of the bleſſed martyr, St. George, tie about thy leg for thy renown, this noble Garter, wear it as a ſymbol of the moſt illuſtrious order, never to be forgotten or laid aſide, that thereby thou mayeſt be admoniſhed to be courageous, and having undertaken a juſt war, in which thou ſhall be engaged, thou mayeſt ſtand firm, valiently fight, and ſucceſsfully conquer."

The Princely Garter being buckled on, and the words of its ſignification pronounced, the elect Knight is brought before the Sovereign, who puts about his neck a ſky-coloured ribbon, whereunto is appendent, wrought in gold,

gold, within the Garter, the image of St. George on horſe-back, with his ſword drawn, incountering the Dragon.

"Wear this ribbon about thy neck, adorned with the image of the bleſſed martyr, and ſoldier of Chriſt, St. George, by whoſe imitation provoked, thou mayeſt ſo overpaſs both proſperous and adverſe adventures, that having ſtoutly vanquiſhed thy enemies, both of body and ſoul, thou mayeſt not only receive the praiſe of this tranſcient combat, but be crowned with the palm of eternal victory."

OF THE ORDER OF ST. ANDREW, OR THE THISTLE, IN SCOTLAND.

It is reported by John Leſly, Biſhop of Roſs, that this order took its beginning from a bright croſs that appeared in the heavens in the form of that whereon St. Andrew ſuffered martyrdom, which ſaid croſs appearing in the year 810 to Hungro King of the Picts (and to the Scots whom Achaius King of Scotland ſent to their aſſiſtance) the night preceding the battle with Athelſtan King of England, over whom they prevailed, they went to the church of St. Andrew, in the town now ſo called, in ſolemn proceſſion, to thank God and his ſaints for their victory; vowing for themſelves and their poſterity, ever to uſe the figure of that croſs in their enſigns and banners, and the number of this order (conſiſting of thirteen) is in alluſion to our Saviour and the twelve apoſtles.

As

As to the time when this order began there is no mention, but it was refined by King James the Fifth, who being honoured with the Garter from England, the Toiſon d' Or from the Emperor, and St. Michael from France, celebrated the feſtivals of them all; and ſetting up their ſeveral arms with their orders about them, over the gates of Linlithgow, erected his own, with the order of St. Andrew, in the midſt of them; the particular enſigns whereof are the ſaid Saint with his croſs, the collar, ſtar, and ribband, all exactly formed.

The collar which the Knights of St. Andrew wear upon the day of their grand feaſt, and other extraordinary occaſions, is of gold, faſhioned into a thiſtle, and ſprigs of rue enamelled vert, appendant to which is the image of St. Andrew, alſo in gold, bearing the croſs before him; and the habit is their Parliament robes, on the left breaſt whereof is a croſs ſurmounted by a ſtar of four points, all of ſilver, adorned with green, a roundle bordered with gold, and letters of the ſame; containing this motto, *Nemo me impune laceſſit*, 'No man provokes me without hurt'; and in the center is the thiſtle proper, to which the motto alludes. Note, that beſide the ſtar, &c. which theſe Knights wear with their collars, and at all other times, they wear (as another common enſign) a green ribband, over the left ſhoulder, after the manner of the Knights of the Garter, appendant to which is St. An-

drew and his crofs in a circle of gold, enamelled and lettered as the roundle under the ſtar; but ſometimes they wear, encircled after the ſame manner, a thiſtle crowned with an imperial crown.

MOSAIC-WORK.

Get a ſufficient quantity of pieces of glaſs of all colours, and ſome gilded and ſilvered, prepared for this work by the glaſs-men; then you may proceed either on a floor or wall: firſt form a draught of your picture, and having chalked the lines, transfer the ſame to the plaiſter, (as in freſco). As this plaiſter is to be laid thick on the wall, it will continue freſh and ſoft a conſiderable time, ſo that there may be enough prepared at once to ſerve three or four days; it is compoſed of lime made of hard ſtone, with brick duſt very fine, gum-tragacanth and white of eggs; when it is thus prepared, and laid on the wall, and the deſign finiſhed of what is to be repreſented, have your pieces of glaſs all in ſeparate caſes according to their colours, and with pliers take them out and range them one after another, ſtill keeping ſtrictly to the light ſhadow, different tints and colours repreſented in the deſign, preſſing or flattening them down with a rubber, which ſerves both to ſink them within the ground and to render the ſurface even.

The more time and trouble you take, the work will ſtill appear more beautiful, as the pieces

pieces of glaſs are uniform and ranged at more equal heights.

Some of theſe are executed with ſo much juſtneſs, that they appear as ſmooth as a table of marble, and as finiſhed and maſterly as a painting in freſco; with this advantage, that they have a fine luſtre, and will hold almoſt for ever.

The fineſt works of this kind that have deſcended to us, are thoſe whereon the moderns have retrieved the art almoſt loſt; viz. thoſe of the church of St. Agnes, formerly the temple of Bacchus at Rome; beſides ſome at Pirce, Florence, and other cities of Italy. The moſt eſteemed among the works of the moderns, are thoſe of Joſeph Pine, and the Chevalier Lanfranc, in the church of St. Peter at Rome: there are very good ones likewiſe at Venice.

PAINTING IN FRESCO.

This manner of painting is performed on walls and ceilings, newly plaiſtered with lime and ſand; the plaiſter is only to be laid in proportion as the painting goes on; no more being to be done at once, than the painter can diſpatch in a day, while it is dry; before he begins to paint, a cartoon or deſign is uſually made on paper, to be chalked and transferred to the wall about half an hour after the plaiſter is applied. In this kind of painting, all the compound and artificial colours, and almoſt all

the mineral are ſet aſide, and ſcarce any thing uſed but earths, which are capable of preſerving their colours, defending it from the burning of the lime, and reſiſting its ſalts. For the work to come out in all its beauty, the colours muſt be laid on quick, while the plaiſter is yet moiſt; nor muſt they ever be retouched dry, with colours mixed up with the white of an egg, ſize or gum, as ſome workmen do, by reaſon ſuch colours grow blackiſh; nor do any preſerve themſelves, but ſuch as were laid on haſtily at firſt: the colours uſed are white made of lime ſlacked long ago, and white marble-duſt, oaker, both red and yellow, violet red, verditer, lapis lazuli, ſmalt, earth black, &c. all which muſt be ground, and worked up with water only, and moſt of them grow brighter and brighter as the freſco dries.

TO MAKE SHELL-GOLD.

Take the paring of leaf gold, or even the leaves themſelves, and reduce them into an impalpable powder, by grinding them on a marble with honey; after leaving it to infuſe ſometime in aquafortis, put it in ſhells, where it will ſtick and dry; when you want to uſe it, dilute it with gum-water.

N. B. Shell-ſilver is made the ſame way.

TO

TO MAKE CARMINE.

Take a pound of the beſt raſped Braſil-wood, and ſteep it for three or four days in a ſufficient quantity of white-wine vinegar; after that boil it for half an hour; ſtrain it through a ſtrong piece of linen, and put it again over the fire; you muſt likewiſe diſſolve by itſelf eight ounces of allum, in a ſufficient quantity of white wine vinegar; mix both liquors together by ſtirring them in a mortar, and there will ariſe a froth, which is the carmine; ſkim it off, dry it, and keep it for uſe. Cochineal or red ſaunders may be uſed inſtead of Braſil-wood.

GILDING.

Size for gilding, is yellow oaker ground fine with water, and laid to dry on a chalk-ſtone; then ground up with a due proportion of fat drying oil, to give it the body, or degree of ſtiffneſs required; with this ſize they waſh over the thing to be gilt, with a bruſh or large pencil; and when almoſt dry, but wet enough to retain the gold, they ſpread the gold leaves thereon, either whole or cut in pieces. To take up and apply the leaves, they make uſe of a piece of fine, ſoft, well carded cotton, or of a pallet for the purpoſe, or barely the knife wherewith the leaves were cut, according to the part of the work they are to gild, or the breadth of the gold to be applied: in proportion as the gold is laid, they preſs it

down ſmooth with a bunch of cotton, or a hare's foot, to make it ſtick, and as it were incorporate with the ground: with the ſame hare's foot, or a hair pencil, they mend any cracks that may happen. This method of gilding will ſtand all weathers.

GILDING IN WATER-SIZE.

For ſtucco, frames, &c. the ſize is made of ſhreds of glove-leather boiled in water, to the conſiſtence of a jelly; the wood to be gilded firſt gets a waſh of this ſize, boiling hot; when this is dry, another of whitening, mixt up with the ſame ſize. For this whitening, ſome uſe plaiſter of Paris, well beaten and ſifted; others Spaniſh white; it is laid on with a ſtiff bruſh, and oftener or ſeldomer repeated, according to the nature of the work; for pieces of ſculpture and deep carving, ſeven or eight lays ſuffice; for flat or ſmooth work, ten or twelve: In the latter caſe, they are applied by drawing the bruſh or pencil over the work; in the former, by daubing it ſmartly on, that the ſize may enter all the dints of the carving.

When the whole is dry, they moiſten it with fair water, and rub it over with ſeveral pieces of coarſe linen, if it be a flat; otherwiſe they beat or ſwitch it with ſeveral ſlips of the ſame linen tied to little ſticks, to make it follow and enter into all the cavities and depreſſures thereof.

The

The white thus finiſhed, they proceed to yellow it, obſerving, that if it be a piece of ſculpture or in relievo, they firſt touch up and repair the ſeveral parts which the white ground may have disfigured, with little iron inſtruments, as gravers and chiſſels.

The yellow which they uſe, is only common oaker, well ground and ſifted, and then mixed up with the ſize uſed for the white, only weaker by one half; this colour is laid on hot, and, in works of ſculpture, ſerves to ſupply the place of gold, which frequently cannot be carried into all the cavities and dintings of foliages and other ornaments.

Over this yellow is applied a lay, which is to ſerve for the ground whereon the gold is to be immediately laid; it is uſually compoſed of the Armenian coal, blood-ſtone, black-lead, and a little fat, to which ſome add ſoap and olive-oil; others burnt bread, biſtre, antimony, tin-glaſs, butter and ſugar-candy; theſe ingredients being all ground together with hot ſize, they apply three lays of the compoſition upon the yellow, each after the other is dried, taking care not to put any in the ſmall cavities of the work to hide the yellow: The bruſh uſed in this application, is to be ſoft; and when the matter is well dried, they go over it with a ſtronger bruſh to rub it down, and take off the little prominent grains; and then facilitate the burniſhing of the gold.

In

In order to proceed to gild, they muſt have three ſorts of pencils, one to wet, another to touch up and amend, and a third to flatten: there is alſo requiſite a cuſhion to ſpread the gold leaf on, when taken out of the book, a knife to cut them, and a hare's foot or ſquirrel's tail, fitted with a handle, or elſe a piece of cotton to take them up, direct and apply them.

They begin with the wetting pencils, by which they moiſten the layer laſt laid on with water, that it may the better receive and retain the gold; the leaves are then laid on the cuſhion, and taken up, if whole, with the ſquirrel's tail; if in pieces, with the other inſtrument, or even the knife they are cut with, and laid and ſpread gently on the parts of the work, before moiſtened.

When the leaves happen to crack, and break in laying on, they make up the breaches with little pieces of leaf, taken up on the repairing pencil; and with the ſame pencil, or another ſomewhat bigger, they ſmooth the whole, preſſing the gold into the dints where it could not ſo well be carried with the ſquirrel's tail. The work thus far got, when dry, remains either to be burniſhed or matted: to burniſh it, is to ſmooth and poliſh it with a burniſher; which is uſually a dog's or wolf's tooth, or a blood ſtone, an agate or a pebble, fitted in a a handle for the purpoſe.

To

To mat, is to give it a light lick in the places not burniſhed, with the pencil dipp'd in ſize, wherein a little vermilion ſometimes has been mixt; this helps to preſerve and prevent its ſlaying when handled.

The laſt thing is to apply a vermeil or lacker, in all the little lines and cavities; and to ſtop and amend any little faults with ſhell gold.

The compoſition here called vermeil, is made of gum gutta, vermilion, and a little of ſome ruddy brown colour, ground together with Venice varniſh and oil of turpentine.

A COMPOSITION FOR GILDING BRASS OR SILVER.

Take two ounces of gum lacea, two ounces of karabe, ſuccinum, or yellow amber, forty grains of dragon's blood in tears, half a drachm of ſaffron, and forty ounces of good ſpirit of wine; infuſe and digeſt the whole in the uſual manner; and afterwards ſtrain it through a linen cloth; when the varniſh is uſed, the piece of ſilver or braſs muſt be heated before it is applied; by this means it will aſſume a gold colour, which is cleaned, when ſoiled, with a little warm water.

TO MAKE DIANA's TREE.

Diſſolve one drachm of pure ſilver in aqua-fortis, and to the ſolution add diſtilled vinegar and water, of each one ounce; filtrate the mixture, and add an ounce and a half of quick-ſilver;

ſilver; mix and ſhake the whole ſome time in a round glaſs, the mouth of which being ſtopped with the finger; then ſet the whole to reſt, and in four and twenty hours time it will ſhoot into branches of various figures.

TO PRESERVE BIRDS WITH THEIR ELEGANT PLUMAGE UNHURT.

When you get a bird freſh killed open the venter, from the lower part of the breaſt-bone down to the anus, with a pair of fine-pointed ſciſſars; take out all the inteſtines, liver, ſtomach, &c. fill up the cavity with the following mixture of ſalt and ſpice; and then bring the lips of the wound together, and ſtitch it up, ſo as to prevent the ſtuffing from falling out: the gullet, or paſſage, muſt then be filled from the back, down to where the ſtomach lay, with the ſame mixture (but finer ground) which muſt be forced down a little at a time, by the help of a quill or wire: open the head near the root of the tongue, with the ſciſſars, and after having turned them round three or four times to deſtroy the brain, fill this cavity likewiſe with the mixture. You may leave the wings and thighs in their natural ſtate, for the ſalt will ſoon penetrate into theſe parts; the bird muſt then be hung up for about two days by the legs; then it muſt be placed in a frame to dry, in the ſame attitude we uſually ſee it when alive on the plain, or on a tree. In this frame it muſt be held up by two threads,

threads, the one paſſing from the anus to the lower part of the back, and the other through the eyes; the ends of theſe threads are to brace up the bird in its natural attitude, and faſtened to the beam of the frame above: let the feet be fixed down with pins or ſmall nails. In this ſituation it muſt remain for a month or more, until the bird is perfectly dry, which will be known by its ſtiffneſs; then it may be taken out of the frame and placed according to fancy, and it will require no other ſupport than a pin through each foot, faſtened into the box or bracket it ſtands on; the eyes muſt be ſupplied with proportionable glaſs beads, fixed in with ſtrong gum-water. Common ſalt one ounce, allum powdered four ounces, pepper ground two ounces, all mixt together.

A VARNISH FOR PRESERVING INSECTS, FRUITS, &c.

Take one pound of rectified ſpirit of wine, and two ounces of white ſuccinum; digeſt the whole in balneo mariæ during forty-eight hours; add thereto an ounce of white ſanderac and white maſtick, an ounce and an half of Venice turpentine; digeſt the whole in balneo mariæ, during twenty-four hours, to an entire diſſolution: take out the inteſtines of the inſects you have a mind to preſerve; lay them for ſome days in rectified ſpirit of wine, mixed with clarified ſugar-candy; afterwards beſmear them with your varniſh, till they are

tranſparent

tranſparent as glaſs; in this manner you will preſerve them a long time

This varniſh ſucceeds equally with vegetables and fruits, which never rot or decay, when not affected by the exteriour air, as has been obſerved with regard to cherries, which are preſerved perfectly well, by beſmearing them with melted white wax.

FAN-MOUNTING.

Before you proceed to place the ſticks, the paper muſt be plated in ſuch a manner, as that the plates may be alternately inward and outward: it is in the middle of each plate, which is uſually about an inch broad, that the ſticks are to be paſted; which again, ſo as to be all joined and rivetted together at the other end, muſt be very thin, and ſcarce exceed one third of an inch in breadth; and when they are paſted to the paper, are ſtill narrower, continuing thus to the extremity of the paper: the two outer ones are bigger and ſtronger than the others: the number of ſticks ſeldom exceed twenty two; the painting may be gold leaf, applied on a ſilver ground, both prepared by the gold-beaters: ſometimes they paint on a gold ground, but it is rarely, true gold being too dear, and falſe too paltry: to apply the ſilver leaves on the paper, they uſe a compoſition which they pretend is a great ſecret, but is no other than gum-arabic, ſugar-candy, and a little honey melted in common

mon water, and mixt with a little brandy: this compoſition is laid on with a ſpunge; then laying the ſilver leaves thereon, and preſſing them gently down with a linen-ball ſtuffed with cotton, they catch hold and grow together: when, inſtead of ſilver, gold ground is laid, the ſame method is obſerved.

The ground being well dried, a number of the papers are well beaten together on a block, by which means the ſilver or gold gets a luſtre as if they had been burniſhed.

TO CLEAN OIL PAINTINGS.

If ſmoaked, or very dirty, take ſtale urine and a little common ſalt; rub them over with a woollen cloth dipt in that, till you think them quite clean; then with a ſpunge waſh them over with fair water; then dry them and rub them over with a clean cloth: if your painting be not very dirty, rub them with ſmalt with a linen cloth; then waſh and dry them.

TO MAKE VARNISH FOR OIL PAINTINGS.

According to the number of your pictures, take the whites of the ſame number of eggs; and to each picture take the bigneſs of a hazel-nut of white ſugar-candy diſſolved, and mix it with a tea-ſpoonful of brandy; beat the whites of your eggs to a froth; then let it ſettle; take the clear, put to your brandy and ſugar, and varniſh over your pictures with it: this is much better than any other varniſh, as it is

eaſily waſhed off when your pictures want cleaning again.

WHITE VARNISH.

Is made with gum-ſanderac and gum-maſtick, diſſolved in ſpirits, left to ſettle two days; then ſtrained through a linen cloth, and after ſtanding ſome time, the clear poured off and bottled for uſe.

LACE VARNISH.

Is made of gum-laeca and ſpirit of wine, frequently ſhaken till the gum be diſſolved; then ſtrained, and the clear decanted off as above: the lace ought to be of the kind called ſeed-lace;—though, for varniſhing ordinary woods, ſhell-lace is often uſed.

A WHITE VARNISH.

Take ten ounces of rectified ſpirits of wine, two ounces of fine pulverized gum-ſanderac, two ounces of Venice turpentine; put all together in a glaſs, and cover it cloſe with waxed paper and a bladder; then take a pot with water and put it over the fire; when it begins to be warm, put a little hay at the bottom of the pot, and ſet your glaſs on it; let it boil three hours, and the ſanderac and turpentine will diſſolve and unite with the ſpirits; then ſtrain your varniſh boiling hot through a clean hair-cloth, and put it in a phial for uſe: all colours and gilding may be varniſhed with this.

OF

OF COLOURS EXTRACTED FROM FLOWERS.

Prepare a ſharp lye from pot-aſhes or lime; in this boil the flowers or leaves of ſingle colours over a ſlow fire, till the tincture of the flower is quite extracted, which you may know by the leaves turning pale, and the lye of a fine colour; put this lye into a well glazed pot or pan; boil it with a little allum; then pour the lye off into a pan with clear water, and you will ſee the colour precipitate to the bottom; let it ſettle well; then pour that water off and add freſh: repeat this till the tincture is intirely cleanſed from the lye and allum; the ſediment is a fine cake; which ſpread on linen cloth, and lay them on clean tiles in the ſhade to dry.

TO MAKE SAP-GREEN.

About a fortnight or three weeks before Michaelmas, take as many ſloes as you pleaſe; maſh them a little, and put them into a clean glazed pan; ſprinkle them well over with powdered allum, and let them ſtand in a hot place for twenty-four hours, and then pour upon them a clear lye; put it upon the fire; let it cool, and pour it through a cloth; what comes through put up in a bladder, and hang it in the air to dry; afterwards keep it always hanging in a dry place, or in the chimney corner, and when you have occaſion to uſe it, take as much as you want, and dilute it with

clear water; if it ſhould turn yellowiſh, put in a little indigo.

A FINE PURPLE.

Take a little cochineal and diſſolve it in boiling water; when cold, mix it up with gum-arabic.

TO PREPARE A BLUE COLOUR FROM VERDIGRISE.

Take ſal ammoniac and verdigriſe, of each ſix ounces; mix them well together with water of tartar into a paſte; put this into a phial, and ſtop it cloſe; let it ſtand for ſeveral days, and you will have a fine blue colour.

A FRENCH YELLOW,

May be made by boiling a little yellow-wood with allum in water; when it ſettles, ſtrain it off and add ſome gum-arabic.

TO MAKE WRITING INK.

Take five ounces of galls, ſix ounces of vitriol, four ounces of gum and a freſh egg; a little powder of walnuts, four pints of beer, and put them into an earthen pot; add a little ſal-ammoniac to keep the mixture from moulding.

TO MAKE INVISIBLE INK.

Take the ſolution of ſaccharum ſaturni, or ſugar of lead, and write with a clean pen; then dry

dry your paper, nothing will appear; let the perſon to whom your letter is directed, have an infuſion of quick-lime and yellow orpiment in water ready, and ſprinkle the letter therewith, and all the words will appear black and legible Or,

After you have wrote your mind with the ſolution of the ſaccharum ſaturni, and dried it, you may write any thing you pleaſe over all the paper with common ink, in order to cover your deſign the better; when your correſpondent gets your letter, let him take a bit of clean ſpunge dipt in the infuſion of lime and orpiment, and rub the paper gently with it, all the ink will immediately vaniſh, and that wrote with the inviſible ink will appear black and legible.

RED INK.

Take the beſt fine Braſil chips; put them into a glazed pot; pour good wine-vinegar over it; let it ſtand three or four hours to ſmoak; then take beer that is clear and bright; mix it with pure pump-water, more than an inch above the chips; ſet it on a gentle fire; let it boil, but take care it do not boil over; after it has boiled ſome time, add powdered allum the quantity of a walnut to it, and as much gum-arabic; ſet it again upon the fire and let it boil; after it has boiled a little, take it off and ſtrain the liquor from the chips;

put it into a glaſs, cloſe it up, and you will have a fine red ink.

TO MAKE INDIAN INK.

Put ſix lighted wicks into a diſh of oil; hang an iron or tin concave cover over it, at a convenient diſtance, ſo as to receive all the ſmoak; when there is a ſufficient quantity of ſoot ſettled to the cover, then take it off gently with a feather upon a ſheet of paper, and mix it up with gum-tragacanth to a proper conſiſtence

N. B. The cleareſt oil makes the fineſt ſoot, conſequently the beſt ink.

CHINA INK.

Take dried black horſe-beans; burn them to a powder; mix them up with gum-arabic water, and bring them to a maſs; preſs it well and let it dry.

TO MAKE FLOWERS OF ISINGLASS IN IMITATION OF ENAMEL.

Take half an ounce of the cleareſt and beſt iſinglaſs; diſſolve it over the fire in half a pint of water; then ſtrain it through a cloth; let it ſtand till it is cold, and you ſee it is a ſtrong jelly; then take an ounce of flake-white ground very fine; diſſolve as much of your iſinglaſs as will make it pretty thick; take fine ſilvered wire, and twiſt it double on a wheel like thread, and make it up in flowers, the form of violets

violets, auriculas, polianthos, primroſes, jonquils, &c. according to your fancy; keep your enamel warm, and dip in your flowers, and they will all fill up and look like enamelled work: paint them to reſemble nature as much as poſſible; ſet them to dry; beat the white of an egg to a froth, and let it ſtand; take the clear and mix it with a ſyrup of white ſugar-candy, and varniſh them over with it, and they will be extremely pretty.

HOW TO SILVER GLASS GLOBES.

Take two ounces of quickſilver, one ounce of biſmuth, of tin and lead half an ounce each: firſt put the tin and lead in fuſion; then put in the biſmuth; and when you perceive all in fuſion, let it ſtand till almoſt cold, and pour in the quickſilver.

After this take the glaſs-globe, which muſt be very clean, and the inſide free from duſt; make a paper funnel, which put in the hole of the globe, as near the glaſs as you can, ſo that the amalgama, when you pour it in, may not ſplaſh and ſpot the glaſs; pour it in ſoftly, and move it about, that the amalgama may touch every where; if you find it begin to curdle, hold it over a gentle heat, and it will flow again: the cleaner and finer the globe is, your looking-glaſs will be the better.

COLOURS TO BE USED IN PAINTING UPON GLASS.

The following colours muſt be all finely ground in oil.

Flake-white muſt be ground with nut-oil, elſe it turns yellow. Ivory-black, Spaniſh brown, umber, roſe-pink, vermilion, red-lead, Indian ink, lake, Engliſh pink, oker, Pruſſian blue, verdigriſe and verditer. When they are ground, the beſt way is to put them up in bits of bladders cloſe tied, and when you uſe them, prick the bladder with a pin, and you can eaſily ſqueeze out the paint; or you may put your colours in ſhells or cups, and cover them with cold water after you uſe them, which will preſerve them from drying up, or cracking.

Ultramarine and carmine being in powders, it is beſt to mix up a little, according as you want it, with a drop or two of nut-oil on your pallet.

When your colours are prepared, and good pencils at hand, lay a ſheet of white paper on your table; take the plate in your left hand, the turpentine ſide next you ſloping, and all the impreſſion and tints will appear; then lay on the lighter colours firſt on the light parts of your print, and the dark colours over the ſhaded: patterns will be needful for young beginners: one colour will hide another as you lay them on.

For

For Red, lay on red-lead, and ſhade with carmine.

Yellow, firſt light, then darker.

Ultramarine and Blues may be ſhaded with indigo.

Green done with verdigriſe, and Dutch pink.

You can lighten any of the colours by a mixture of white; and darken them as you think proper with deeper ſhades. You can thin the colours as you pleaſe with a little oil of turpentine.

Have a pencil for each colour, and waſh them in turpentine; your glaſs muſt ſtand four or five days to dry, free from duſt, after it is painted, before it be framed.

N. B. You may paint on glaſs with the above colours, any birds, flowers, landſkips, &c. as your fancy leads you; only great care muſt be taken not to blend the different colours: when judiciouſly done, they look very pretty.

INSTRUCTIONS FOR PAINTING ON PAPER AND SILK, AND COLOURING PRINTS, DRAWINGS, &c.

It is impoſſible to give directions here for drawing; that muſt be left to the taſte and genius of the performer; only nature cannot be too cloſely adhered to: the light ſhould always come in from the left hand, and conſequently the ſhades will appear on the right ſide. The principal colours uſed in flower-

painting

painting are, ſlake-white, carmine, lake, vermilion, liquid blue, ſap-green, gamboge, China ink, umber burnt and unburnt, diſtilled verdigriſe.

Flake-white, umber, lake and vermilion, ought all to be ground with a mallet on a marble with thin gum-water; carmine mixed up with a gum-water; ſap-green diſſolved in water and gum; gamboge the ſame; the burnt umber for dark colours, and the unburnt for lighter: they keep beſt in phial glaſſes, and no more taken out than what is immediately uſed, as it will otherwiſe crack and ſcale off, and ſo be loſt unleſs it be ground over again. All theſe colours you can temper as the work requires: If you are to paint on paper, let the ſame lay flat on a table, and put ſomething heavy on the corners to keep it from ſhifting: If you paint on white ſatin, or any other ſilk, it muſt be ſtitched upon a cloth ſtretched in a frame or tent: take care to have always at hand a phial with water, in which a good deal of allum has been diſſolved, and, with a clean pencil, cover all the draughts with this liquid, to keep the colours from running: obſerve, you cannot paint on ſilk properly, without firſt laying on this ſize, which muſt be dry before you begin to paint.

Have water in which pure gum-arabic and white ſugar-candy have been diſſolved, alſo at hand; it prevents the colours from flying off.

Have

Have a little phial with ſpirits of hart's-horn, a little drop of which mixt among the carmine adds greatly to its beauty.

You muſt have hair-pencils of ſeveral ſizes; the beſt are theſe that keep cloſe when wet.

Roſes are laid on with pale carmine and white, which may be ſoftened with a faint waſh of pale blue; then ſhaded with carmine and leſs white, and the deepeſt with carmine by itſelf; make the heart always darker than the reſt; the ſtalks are browniſh, done with ſap-green and a little carmine; make ſome of the leaves a yellowiſh brown as if withered; this has a very natural look.

Tulips are ſo various, that no certain directions for colouring them can be given; ſome are done with lake and carmine mixed, or on white; others are purple laid on with blue, carmine and lake; theſe colours muſt be ſtreaked according to nature.

The Crocus are of two ſorts, yellow and purple; the yellow muſt be done with paler and darker gamboge; the purple done with that colour, and ſtript with a deeper tint; the ſeed of both is yellow.

Anemonies are of ſeveral ſorts, as purple, ſcarlet, and ſtraw colour; ſome are done with vermilion, and ſhaded with the ſame colour, carmine and lake; variegated ones are firſt laid on with pale gamboge, and ſhaded according to nature.

The

The blue Hyacinth is laid on with blue and white, and ſhaded with leſs white: for the red, a faint tinge of carmine muſt be gently waſhed over, and finiſhed with a little blue and white.

Crown Imperial is firſt begun with a lay of gamboge, then one of red, and ſhaded with carmine.

Auricula: The various beauties of this flower have exerciſed the pencils of the curious to diverſify them according to the different productions of nature; and to that we muſt refer, a bloſſom from the garden being the only pattern.

Jonquil is done with a lay of gamboge, and ſhaded with carmine.

Ranunculas are various; ſome white and clouded with crimſon, ſome yellow or ſtraw, and ſtript red, done with carmine; make ſome of the leaves a yellowiſh brown, as directed for the roſe leaves.

Iris: The blue one is commonly choſen in painting, and the only proper way is from a natural flower, or a coloured pattern to paint it.

Piony is a deep crimſon, laid on with carmine, and proceeding with a darker for ſhading.

Carnations, martagons and ſun-flowers, honey ſuckle, French and African marigolds, aſters, polianthos, wall flowers and pinks, muſt all be coloured from natural or artificial patterns.

TO EXTRACT ESSENCES AND ESSENTIAL OILS, FROM WOODS, BARKS, ROOTS, HERBS, BERRIES, SEEDS, &c. WITHOUT THE HELP OF FIRE OR DISTILLATION.

Take mint, ſage, orange-peel, cinnamon, cloves, mace, or any thing you pleaſe; pour upon them a ſpoonful or two of æther, and after it has ſtood an hour in a cold place, fill up the bottle with cold water, and you will ſee the eſſential oil ſwimming upon the ſurface, and eaſily ſeparable by a funnel: Of this eſſential oil, one drop only, upon a lump of ſugar, manifeſts to the taſte and ſmell the medicinal virtues of the plant, &c. exquiſitely drawn and comprehended in this eſſence.

OF DYEING.

The dyeing materials are generally applied in decoctions of water, more or leſs ſtrong, according to the occaſion; ſometimes by only dipping the ſtuff in a dye-vat, ſometimes by boiling it therein, and ſometimes by leaving it, a day or more, to ſteep. For black in cloaths and ſtuffs of value, it is begun with a ſtrong decoction of woad and indigo, which gives a deep blue; after which the ſtuffs being boiled with allum and tartar, or pot-aſhes, are to be maddered with common madder; then dyed black with galls, copperas and ſhumach, and finiſhed by bouk boiling in weld.

Scarlet is dyed with kermus and cochineal; with which alſo may be uſed agarick and arſenick.

Crimſon ſcarlet is given with maſtick, cochineal, aquafortis, ſal-ammoniac ſublimate, and ſpirits of wine.

Violet, ſcarlet, purple, amaranth and panſy ſcarlets, are given with woad, cochineal, indigo, Braſil, Braſiletto and orchal.

For common reds, pure madder is uſed, without any other ingredients.

Crimſon reds, carnation, flame and peach colours, are dyed according to their ſeveral hues, with maſtick, cochineal, madder, or the like.

Crimſon red is prepared with Roman allum, and finiſhed with cochineal.

Pearl colour muſt be bouked a little, with galls and copperas, or the like.

Orange aurora, or golden yellow, brick colour and onion-peel colour, are given with woad and madder, tempered according to their reſpective ſhades.

For blues, the dark are given with a ſtrong tincture of woad; the brighter with the ſame liquor, as it weakens in working.

Dark browns, minims, and tan-colours, are given with woad, weaker in decoction than for black, with allum and pot-aſhes; after which, they are maddered higher than black: for tan-colours, a little cochineal is added.

Pearl

Pearl colours are given with galls and copperas: ſome are begun with walnut-tree roots, and finiſhed with the former; though, to make them more ſerviceable, they uſually dip them in a weak tincture of cochineal.

Greens are begun with woad and finiſhed with weld; pale yellows, and lemon colours, and ſulphur colours, are given with weld only.

Olive colours of all degrees, are firſt put in green, and taken down again with ſoot, more or leſs, according to the ſhade required.

Hair colours, muſk and cinnamons, are given with weld and madder.

Bright orange red, is given with weld and goat's hair, boiled with pot aſhes.

N. B. All ſtuffs are waſhed after dyeing.

DYEING OF SILKS.

Dyeing of ſilks is begun by boiling them with ſoap, &c. and the ſcouring and waſhing them in the river, and ſteeping them in allum-water cold. For crimſon, they ſcour them a ſecond time, before putting them in the cochineal vat.

Red crimſon is dyed with pure cochineal, maſtick, adding galls, turmerick, arſenick and tartar, all put together in a copper of fair water almoſt boiling; with theſe the ſilk is to be boiled an hour and a half, after which it is ſuffered to ſtand in the liquor till next day.

Violet crimſon is alſo given with pure cochineal, arſenick, tartar and galls; put the galls

in leſs proportion than the former: when taken out, it is to be well waſhed and put in a vat of indigo.

Cinnamon crimſon is begun like the violet, but finiſhed by bouk boiling; if too bright, with copperas, if dark, with a dip in indigo.

Light blues are given in a bouk of indigo.

Sky blues are begun with orchal, and finiſhed with indigo.

For citron colours, the ſilk is firſt allumed, then welded with a little indigo.

Pale yellows, after alluming are dyed in weld alone.

Pale and brown auroras, after allumming, are welded ſtrongly; then taken down with rocour, diſſolved with pot-aſhes

Flame colour is begun with rocour; then allumed and dipped in a vat or two of Braſil.

Carnation and roſe colours, are firſt allumed, then dipped in Braſil.

Cinnamon colour, after alluming, is dipped in Braſil and Braſilletto.

Lead colour is given with fuſtick, or with weld, Braſilletto, galls and copperas; but the galls, on theſe and other occaſions, are not to be purchaſed.

Black ſilks of the coarſer ſort, are begun by ſcouring them with ſoap, as for other colours; which done, they are waſhed out, wrung and boiled an hour in old galls, where they are left to ſtand a day or two; after which they are waſhed again in fair water, wrung and

pu

put in another vat of new and fine galls; then waſhed and wrung again, and finiſhed in a vat of black.

Fine black ſilks are only put once into galls, viz. the new and fine ſort, which has only boiled an hour; then they are waſhed and wrung out, and dipped thrice in black, to be afterwards brought down by back boiling with ſoap.

DYEING OF THREAD.

Dyeing of thread is begun with ſcouring it in a lye of good aſhes; after which it is wrung, rinſed out in river-water, and wrung again.

For a bright Blue, it is given with Braſiletto and indigo.

Bright Green is firſt dyed blue, then back boiled with Braſiletto and verditer, and laſtly woaded.

For a dark Green, it is given like the former, only darkening more before woading.

Lemon or pale Yellow is given with weld mixt with rocour.

Orange and Iſabella, with fuſtick, weld and rocour.

Red, both bright and dark, with flame-colour, &c. are given with Braſil, either alone, or with a mixture of rocour.

Violet, dry roſe and amaranth, are given with Braſil, taken down with indigo.

Feulmort and olive colour, are given with galls and copperas, taken down with weld, rocour or fuſtick.

Black is given with galls and copperas, taken down and finiſhed with Braſiletto wood.

TO BLEACH BEES-WAX.

Melt your wax, and, while hot, throw it into cold water to reduce it to little bits, or ſpread it out into very thin leaves, and lay it out to the air night and day, on linen cloths; then melt it over again and expoſe it as before; repeat this till the ſun and dew have perfectly bleached it; then, for the laſt time, melt it in a kettle, and caſt it with a ladle on a table covered over with little round hollows, in the form of the cakes ſold by the apothecaries; but firſt wet your moulds with cold water, that the wax may be the eaſier got out; laſtly, lay them out in the air for two days and two nights, to make it more tranſparent and drier.

TO MAKE WAX-CANDLES.

Tie a dozen of wicks on an iron circle, at equal diſtances, over a large copper veſſel, tinned and full of melted wax; pour a ladle-full of the wax on the tops of the wicks, one after another; what the wick does not take, will drop into the veſſel, which muſt be kept warm by a pan of coals; ſo pour on till you have your candles as big as you chuſe: If you want to have them of a pyramidal form, let the

the three firſt ladles be poured on at the top of the wick, the fourth at the height of ¾, the fifth at ½, and the ſixth at ¼; then take them down hot, and lay them aſide of each other in a feather-bed folded in two, to preſerve their warmth and keep the wax ſoft; then take them down, and roll them one by one on a ſmooth table, and cut off the thick end as you pleaſe.

COSMETICKS, &c.

HOW TO BEAUTIFY THE SKIN.

To ſuch as may have a diſagreeable colour, take two quarts of vinegar, two ounces of mouth glew, two ounces of nutmeg, and ſix ounces of honey; diſtill it with a ſlow fire; put in a ſmall quantity of red ſaunders after it is diſtilled, before uſing it; waſh the face and neck with ſoap and water; then waſh with the diſtilled liquor: it will give a freſh healthy complexion. Or;

Take rye-bran, and ſift it clear from all the flour; ſoak it three hours in white-wine vinegar, and ſtir it in ſome yolks of eggs; diſtill it in *balneo mariæ;* the water thus drawn off will very much beautify the ſkin.

ANOTHER.

Take parſley, nettle-ſeed and peach kernels, of each the ſame quantity; boil them in clear water and waſh with it. Or;

Take

Take lemons and hard boiled eggs; cut them in ſlices, and lay them one over the other in a ſtill, the bottom being covered with well waſhed turpentine; uſe the water when diſtilled. Or;

Boil the bloſſoms of roſemary, allum and tartar, in wine; and waſh with it. Or;

Take ſlices of lemon and dried beans; let them ſoak in wine; add to it honey, eggs, and goat milk, ſo diſtill it. Or;

Boil two calves feet in nine pints of water, to half the quantity; then put in two pounds of rice, and crumbs of fine bread ſteept in milk, the white of ten new laid eggs; mix all, and diſtill it; mix in the diſtilled water a little camphire and allum. It is a very beautifying waſh.

VIRGIN MILK VERY EASILY MADE.

Take a quantity of houſe-leek, beat it in a marble mortar, and preſs out the juice and clarify it; when you want to uſe it, put a little of it in a glaſs, and pour in ſome drops of ſpirits of wine, which will curdle it: it is very proper to make the ſkin ſmooth, and take away reddiſh ſpots.

A WATER TO TAKE AWAY PIMPLES.

Take an equal quantity of houſe-leek and celandine, diſtill them in a ſand-heat and waſh with it.

POWDER

POWDER FOR TAKING OFF FRECKLES.

Calcine ſheep-ſhanks and reduce them to powder; infuſe the powder four and twenty hours in white-wine; and rub the face with this infuſion.

PASTE FOR THE HANDS.

Blanch and beat a pound of bitter almonds, with two handfuls of ſtoned raiſins, till they are very fine; then take three ſpoonfuls of white-wine or brandy, and as much ox-gall; three ſpoonfuls of brown ſugar, the yolks of three eggs; beat it well together, ſet it over the fire, and give it two or three boils; when almoſt cold, mix it with the almonds; keep it cool, it will be good ſix months.

TO TAKE OFF WARTS.

The leaves of marigolds, the juice of fig-wort and ſavine, the juice of green figs, ſalt beat in the juice of horſe-raddiſh, common ſalt diſſolved in vinegar and ſnails, are all efficacious remedies for warts; ſo is agrimony infuſed in vinegar.

TO MAKE THE TEETH WHITE

Mix three ſpoonfuls of celandine, nine ſpoonfuls of honey, and half a ſpoonful of burnt allum all together, and rub your teeth with it.

A POWDER

A POWDER FOR THE TEETH.

Take half an ounce of cream of tartar, and a quarter of an ounce of powder of myrrh; rub your teeth with it thrice a-week.

TO MAKE SOFT POMATUM.

Take what quantity of hog's lard you chuſe to make; cut it down in ſmall pieces, and cover it with fair water; change it every twenty-four hours for eight days; when it is quite white, put it into a ſmall pan, and melt it over a clear fire; when it is all melted, ſtrain it, and put to it ſome eſſence of lemon to perfume it; ſo keep it for uſe.

HARD POMATUM.

For hard pomatum, blanch the hog's lard in the ſame manner; and blanch alſo ſome ſheeps ſuet, and boil together with a little white wax; ſcent it with eſſence of lemon or lavendar; then make round paper-caſes, and, when cold, turn down the other end, and keep it for uſe.

RED POMATUM FOR THE LIPS.

Take an ounce of white-wax and ox-marrow, three ounces of white pomatum, and melt all in a bath-heat; add a drachm of alkanet, and ſtir it till it acquire a reddiſh colour.

TO

TO WASH GAUZES.

Waſh them in water as hot as you can hold your hands in it; after they are thoroughly waſhed, rinſe them in hot water; don't let them touch cold water, as it yellows them; then hang them up to dry; make your ſtarch, and diſſolve a bit of the cleareſt gum arabic in it; mix up ſome raw ſtarch and add to it, and with this ſtarch your gauzes; give them a clap or two, then pull them even; ſo dry them, fit for ſmoothing.

LAWNS AND MUSLINS.

When you have clear-ſtarched them after they are blued, dry them; then dip them in thick ſtarch; keep clapping them till they are dry enough for the irons.

TO WASH LACES, NET OR CAT-GUT

If your lace or net be very dirty, ſteep them over night in ſweet oil, or take ſome ſoft pomatum and rub them over with it; roll them up, eſpecially your blond lace: Have a kettle boiling with ſoap and water; put your laces into it; when you ſee the water dirty, preſs your laces or net with a wooden-ladle or ſpoon: have another kettle ready boiling with fair water, which always ſupply your laces with, from one water to another, adding ſoap to it, till the laſt lather be as clean as when it was put in.

Then

Then take your thread laces and rinſe them well in cold water; you may blue them or not to your own taſte. Stiffen your blond laces with ſome diſſolved white ſugar candy without rinſing them; then pin them every half inch upon a clean ſheet, the ſheet being cloſe ſtretched down to the table; ſo let them dry: they look much better done this way than when ſmoothed.

TO WASH PRINTED CALLICOS, COTTON AND LINEN.

Waſh them in a weak lather of ſoap, a little more than milk warm; and, inſtead of bleaching them, put them into a tub of ſpring or pit-well-water, and change the water three or four times, till it be quite clear; and in the drying expoſe them as little to the ſun as poſſible.

TO WASH WHITE SILK STOCKINGS, GLOVES OR MITTS.

Rub them with pomatum as above, and boil them in the ſame manner; then ſtarch them; when half dry, calender them.

TO TAKE IRON-MOLDS OUT OF LINEN.

Bruiſe ſome ſorrel well in a mortar; put boiling water in a bowl; lay a pewter plate over it; put your linen on the plate, and rub the mark with the ſorrel till it comes out; then waſh it.

TO

TO TAKE MILDEW OUT OF LINEN.

Take ſoap and rub it very well; then ſcrape ſome fine chalk, and rub that alſo in the linen; lay it on the graſs; as it dries, wet it a little; it will come out at twice doing.

A GOOD WAY OF WASHING TO SAVE SOAP.

Take a barrel, and bore holes in it half way; put in ſome clean ſtraw, and lay on that a peck of wood-aſhes; then fill it up with cold water, and ſet it into a tub to receive the water as it runs from the caſk through the holes; if it is too ſtrong add more water, and waſh your linen, ſlightly ſoaping the cloaths before you waſh them: two pounds of ſoap will go as far as ſix pounds in the ordinary way, and make the linen much whiter.

TO MAKE ARTIFICIAL MILK.

Have a glaſs or phial of that medicine, known by the name of the Family Secret; take what quantity of ſoft water you chuſe and drop in the medicine; then ſtir it about with a ſpoon, and it will immediately acquire the colour and conſiſtence of milk, and may be very ſafely uſed.

HUNGARY-WATER.

Take a quantity of the flowers of roſemary; put them into a glaſs retort; and pour in as much ſpirits of wine as the flowers can

imbibe; dilute the retort well, and let the flowers macerate for ſix days; then diſtill it in a ſand-heat.

TO MAKE ROSE-WATER.

Gather your roſes when juſt blown, after the ſun has dried off the dew; pick off the leaves, and ſpread them on a cloth till they are free from any moiſture; then put them in a pewter-ſtill; paſte the top round; place a clean dry bottle to the noſe of the ſtill, and tie a cloth round it to keep in the ſcent; make a ſlow fire under your ſtill; you may increaſe it a little when it begins to drop, and draw out the fire when it begins to ſlack; when it gives over dropping, turn the cake in the ſtill, till it is quite dry.

TO MAKE COURT PLAISTER.

Take gum-benjamin and ſtyrax, of each an ounce; pour over them a pint of rectified ſpirits of wine; and, after it has ſtood ſome time, ſtrain off the liquor; take two ounces of bruiſed iſinglaſs, and boil it in half a pint of water till it is diſſolved; then ſtrain it, and add half a pint of the tincture as above; this quantity is ſufficient for a yard of ſilk, which muſt be tacked tight in a frame, and the mixture ſpread hot upon it with a fine bruſh of camel's hair: when once laid over, dry it gently before a fire before it is ſpread again; this muſt be repeated till the mixture is all laid on.

N. B. It

N. B. It muſt be ſpread before a fire at the diſtance of a yard, and the mixture muſt be kept hot.

TO SEPARATE GOLD AND SILVER FROM LACE, WITHOUT BURNING IT.

Cut the lace in pieces, and, having ſeparated the thread from it by which it was ſewed to the cloaths, tie it up in a linen cloth, and boil it in ſoap lye diluted with water, till you perceive it is diminiſhed in bulk, which will take up but a little time, unleſs the quantity of lace be very conſiderable: then take out the cloth and waſh it ſeveral times in cold water, ſqueezing it pretty hard with your foot, or beating it with a mallet, to clear it of the ſoap lye; then untie the cloth, and you will have the metallic part of the lace pure and no where altered in colour, or diminiſhed in weight.

N. B. If you cannot get a ſoap-lye, make what quantity will be ſufficient with pearl-aſhes and quick-lime.

TO MAKE WHIPT SYLLABUBS.

Take a quart or a pint of cream, according to the quantity you want to make; take half a pint of white-wine, the juice of two lemons or bitter oranges, half a pound of ſugar finely grated; put it in a large china bowl, and whiſk it well; put ſome claret or white wine in a bowl, and ſweeten it to your taſte; put in a little beat cinnamon, then fill your glaſſes

as full as you pleaſe; then take the froth of your cream and fill the glaſſes as high as it will lie on; keep ſtill whiſking your cream till they are all full.

N. B. If you have a large chocolate-mill and a large deep bowl to mill it in, it is both quicker, and has a much ſtronger froth.

TO MAKE HARTS-HORN JELLY.

To half a pound of harts-horn take three quarts of water; boil it over a ſlow fire till it jelly, which you may know by cooling a little in a ſpoon; ſtrain it into a well-tinned ſauce-pan; put to it a pint of white wine, ſugar to your taſte, and a ſtick of cinnamon; whiſk the whites of ſix eggs to a froth; ſtir it well with the jelly; let it boil three or four minutes; then put in the juice of three lemons, and let it boil two minutes longer; when it is well curdled, and quite clear, run it through your jelly-bag into a china baſon; you muſt return it into the bag till it be as fine as rock-water; then fill your glaſſes: If you want it of an amber colour, lay ſome thin rind of lemon in the baſon amongſt the jelly.

TO MAKE CALVES-FOOT JELLY.

Take four of the largeſt calves feet you can get; clean them well from the hair; take out the large bones and ſplit them; put three quarts of ſoft water to them; let them boil till the half is waſted; then ſtrain them and blow off any fat that may be on the top, and when

when it has ſtood any time, not long, pour it into another bowl, clear from the grounds; put three gills of white wine, the juice of two oranges or lemons, ſugar to your taſte, the yellow rind of one of the lemons, and a piece of cinnamon; boil them for a little time; then take them off to cool a little; take the whites of ſix eggs and whiſk them to a froth; ſtir them in your jelly; when it boils, and the eggs are like curd on the top, take it off and let it ſettle a little; then take the eggs and put them in your jelly-bag firſt, to help to thicken it.

N. B. I would prefer a clean napkin, ſewed double in the form of a jelly-bag, to a flannel: Return your jelly into the bag till it be as clear as rock-water.

TO MAKE RIBBON-JELLY.

Take out the bones of four calves feet; put eight quarts of water to them, two ounces of iſinglaſs, three ounces of harts-horn, a ſtick of cinnamon, a little mace, four lemons, and ſugar to your taſte; take ſix eggs and beat them to a froth, and mix with your jelly; boil it and run it through your bag; take as many little bowls as you want colours; tie up a little powdered turmerick in a rag, and ſteep it in your jelly for a yellow, or a little ſaffron; for red, cochineal; for green, the juice of ſpinage; blue, a little Pruſſian blue, or ſyrup of violets; run every colour about the thickneſs of your finger; one colour muſt be cold

before you put another on, and that you run on muſt not be blood warm: the white is done with thick cream, and ſometimes jelly alone.

N. B. This jelly will do for the different colours in your blamange.

TO MAKE RED CURRANT-JELLY.

As the common way of making currant-jelly is ſo generally known, I need ſay nothing of it, but I take the following method to be the beſt: When your currants are ſtript from the ſtalks, put them in a well-glazed jug, and cover it cloſe; ſet it in a pot of water, and let it boil near an hour, then ſtrain the juice through a hair-ſearch; to every pint of juice, take a pound of ſugar; ſet it over a quick fire, in a ſmall clean pot, and keep ſtirring it till the ſugar is diſſolved; take off the ſcum as it riſes; you will know when it is enough by taking up a little in a ſpoon; cover your glaſſes with paper cut to the ſize of your pots; prick holes in them, and dip them in brandy; keep them in a dry place.

TO MAKE WHITE CURRANT-JELLY.

Take the largeſt white currants, and ſtrip and bruiſe them, and ſtrain them through a clean cloth; to every pint of juice take a pound of ſugar; ſet the juice on the fire in a ſmall pan by itſelf, and let it boil; it will throw up a very thick ſcum, and the juice will be quite clear; beat your ſugar; let it be

ſingle

ſingle refined; put it in your pan, and put the juice to it: run it through a piece of muſlin; ſet them to boil and ſkim them well; if done in this manner they will be quite fine: if you pleaſe, you may ſtone ſome white currants, and put them in and boil them till they are clear; but take care you do not boil them too high; paper them as you do other jellies.

N. B. If you boil them in a braſs-pan they will turn reddiſh.

A GOOD JELLY OF PIPPINS.

After you have pared and cored your pippins, cut them in ſlices; have ſome water boiling in a tea-kettle; put your pippins in a pan, and as much water as will cover them; boil them to a maſh; then put them in a ſtrainer and let all the thin run from them; to every pint of liquor take a pound of ſugar; wet your ſugar and boil it till it comes to ſugar again; keep it ſtirring all the time; pour in your liquor, and cut ſome pieces of candied orange-chips fine; let them all boil till they jelly, which will be quickly; you may perfume it if you pleaſe. You may preſerve whole pippins in this jelly, only boil them firſt in a ſyrup by themſelves. *See* preſerved apples.

TO MAKE LEMON-JELLY.

Take ſix lemons, and grate off the yellow rinds into a pint and half of water; let it lye two hours; take near a pound of ſugar and the

the juice of ſix lemons; when the ſugar is melted ſtrain it through a ſearch; then put to it the whites of five eggs well beaten; take a little of the powder of turmerick tied up in a rag, and put it in a little water; ſqueeze it a little in the jelly to make it a fine lemon-colour, but not too yellow; ſkim it well when it boils: when it jellies put it in jelly-glaſſes.

BLAMANGE.

Make your ſtock in the ſame way as for the ribbon-jelly: if you want your blamange white, take half a pound of ſweet almonds, blanch and beat them; take half a pint of thick cream and add in the beating; preſs them through a coarſe hair-ſieve, and return them till you get as much of the almonds as poſſible; mix this well with your jelly after it runs, and then mix it well together and it will be a fine white. If you want one yellow, do it with the yolks of raw eggs; put it in your blamange frame till it be quite cold; as the frames have often many diviſions, and made ſo very high that the blamange is apt to break in the coming out, dip your frame in boiling water, and it will come eaſy out: take care no water go in the frame.

TO PRESERVE DAMSONS WHOLE.

Take what quantity of damſons you pleaſe; bruiſe them in pieces; put them in a pan over the fire, with as much water as will cover them,

them, when they are boiled, and the liquor pretty ſtrong, ſtrain it; then take what quantity you chuſe to keep whole: to each pound of whole damſons take a pound of lump-ſugar; put the third part of your ſugar into the damſon-juice; ſet it over the fire, and, when it is warm, put in the damſons; let it have a boil; take them off for three quarters of an hour; be ſure they be covered with a ſtew-pan lid; ſet them on again; let them ſimmer over the fire for half an hour more; then take them out and put them in your pots; throw the remainder of the ſugar on them, and pour your liquor over them hot through a ſearch; let them ſtand till next day, then boil them up again till they are enough; take them carefully up with a ſpoon, and place them in your pots; boil your liquor till it jellies; let it ſtand a while, and then pour it over them; ſo paper them up.

TO PRESERVE PIPPINS.

Pare and core them with a coring-iron run through the middle of them; put them in cold water, as much as will cover them, to keep them from colouring; to eighteen pippins take three quarters of a pound of loaf-ſugar, ſome cinnamon, and lemon-rind cut like threads; boil your ſyrup and ſkim it; about a pint of water will do; put in your rinds, let them have a boil; then put in the pippins and cover them down with a ſheet of writing paper, and ſet them

them on a ſlow fire; let them ſtew till they are very tender and look clear; take them out and place them handſomely on your diſh; lay the pieces of lemon rind upon them; run your ſyrup through a ſearch; you may, if you chuſe, throw a few nonpareils coloured round the edge of the diſh.

GOOSEBERRY JAM.

Take your beſt walnut or red goodſeberries; clip off the tops and ends with a pair of ſciſſars: to two quarts of berries take a pound of ſugar; make it into a ſyrup with half a pint of water to the pound; take two or three teaſpoonfuls of Florence oil; put it into a diſh; pour your gooſeberries on the diſh, and turn them backwards and forwards a little time; this prevents their breaking, and is the way, I am told, they preſerve them in Italy. Then put them into the ſyrup; let them boil ſoftly till they are quite clear; take them carefully up without breaking; put them in your pots; when cold tie them up with leather.

TO MAKE CROCANT.

A crocant-frame is made of copper, in the form of an egg cut through the middle, and about the ſize of two quarts; take about half a pound of flour and an ounce of fine grated ſugar, which make up in a paſte with the yolk of an egg or two, and a little water; roll it out very thin and even; butter the out-ſide of your

your crocant, and lay the paſte over it quite ſmooth, and, with a ſharp pointed pen-knife, cut it in what figure you pleaſe; but it is only thoſe who underſtand drawing can do it to perfection, as it ought to be done, in coats of arms, flowers, foliage, &c. When done ſet it in the oven to harden, and make it a cover for preſerved fruits of any kind. You may boil ſugar till it be quite tough and ropy, and butter your frame, and with a ſmall twig lay it on the frame, in what figure you pleaſe; take it off when quite hard, and uſe it as the other.

CONSERVE OF HIPPS.

Pull your hipps when they are ripe, but before they turn too ſoft; cut them through the middle, take out all the ſeeds and white; then put them in an earthen bowl, and ſtir them every day, elſe they will grow mouldy; let them ſtand till they are ſoft enough to rub through a coarſe ſearch or fine cullender: it requires pains to rub them through, as they are a dry berry; grate their weight in ſugar, mix them well together; they require no boiling; keep them in jelly pots for uſe.

TO MAKE ORANGE MARMALADE.

To the largeſt beſt Sevile oranges take the ſame weight of ſingle refined ſugar; grate your oranges; then cut them in two, and ſqueeze out the juice; throw away the pulp;

pulp; cut down the ſkins as thin as poſſible, about half an inch long; put a pint of water to a pound of ſugar; make it into a ſyrup; beat the whites of three or four eggs, and clarify it; put in your rinds and gratings, and boil it till quite clear and tender; then put in your juice, and boil it till it is of a proper thickneſs; when it is cold put it in your pots, and paper it up; this is by much the eaſieſt and beſt way of making marmalade.

TO PRESERVE ORANGES WHOLE.

Take the beſt Sevile oranges; grate off the outer rind; rub them with ſalt and throw them into freſh water twenty-four hours; then take them up and dry them well; with a ſcooping iron run them through; take out all the ſeeds; take their weight and the half of that of ſugar, and make a ſyrup; to every pound of ſugar put a pint of water; make it in a ſyrup; when it is clarified put in your oranges, and let them ſimmer over a ſlow fire, till they be quite clear: if your ſyrup is not enough, take them out, and boil it till thick; ſo return the oranges into it, and boil it a while.

N. B. They will keep good a twelve-month or more.

TO PRESERVE GREEN GOOSEBERRIES,

Be ſure the berries be dry when you pull them; clip off the tops and ends with a pair of ſciſſars; put them in quart bottles, and cork them; have ready a pot of water; put the bottles in up to the neck; let the water boil ſlowly till the berries coddle; ſo do all the bottles, and dip the necks in roſin, which will keep out the air; put them in a dry place: you may do them without ſcalding; but then the ſkins are always tough.

TO KEEP ARTICHOKES ALL THE YEAR.

Boil up a pickle of ſalt and water; ſkim it well; let it ſtand till the foulneſs of the ſalt fall to the bottom; then pour it off into the veſſel in which you deſign to keep your artichokes; blanch them in boiling water, only ſo long that you may take out the chokes; waſh them in ſeveral waters, till quite clean; put them in the pickle; to which you may add a little vinegar, if you chooſe, and pour on the top ſome butter melted, that no air may enter; cover the veſſel carefully with a piece of linen cloth, and lay a board or lid over it to keep it quite free of air: when you want to uſe them, ſteep them in freſh water to take off the ſalt: you can keep them this way more than twelve months.

TO KEEP ARTICHOKES DRY ALL THE YEAR.

When you have blanched them, and taken out the chokes as above directed, lay them on clean ſieves, or any thing proper for draining them; then put them in an oven moderately hot, till they be as dry as wood; ſteep them two days in lukewarm water before you uſe them; which will make them quite freſh.

ANOTHER WAY OF KEEPING THEM.

Cut off the leaves and chokes with a ſharp knife, and throw each bottom directly into fair water, otherwiſe they will turn black; when you take them out cover them all over with flour; dry them in an oven as above; when you want to uſe them, let them ſoak twenty-four hours, and boil them as you do other artichokes.

RATAFIA OF CHERRIES.

Bruiſe your cherries and put them into a brandy caſk; then put in the kernels of cherries, ſtrawberries, and ſugar, cinnamon, white pepper, nutmegs and cloves; and to twenty pounds of cherries pour on five pints of brandy; leave the caſk open ten days; then bung it up, and in two months draw it off.

TO ICE TARTS.

Take the yolk of an egg or two, and a little melted butter; beat them very well together; waſh

wash over the tops of your tarts with a feather; ſift ſugar on them juſt as you put them in the oven.

TO MAKE RATAFIA-CREAM.

Take eight laurel leaves; boil them in a quart of cream; take out the leaves; then beat the yolks of ſix eggs, with a little cream and ſugar to your taſte; then thicken the cream with your eggs; ſet it over the fire, but do not let it boil; ſtir it all the while one way; then put it in china diſhes or plates: when cold it is fit for uſe.

CHOCOLATE-CREAM.

Take a quart of milk, a quarter of a pound of ſugar; boil them for a quarter of an hour; beat up the yolks of two eggs; put it in the milk, and give it a boil; take it off the fire, and put chocolate to it till the cream has taken the colour of it; then boil it again a minute; ſtrain it through a ſieve, and put it in china diſhes.

N. B. You may make Cinnamon-cream the ſame way.

TO MAKE A HASTY CREAM.

Get three quarts of milk, warm from the cow; ſet it on the fire; when it begins to riſe take it off, and let it ſtand a little; take the brat or cream off the top of it, and lay it on a plate; ſet your pan on the fire again, and con-

tinue to do ſo till your plate is full of brat or cream: throw grated ſugar over it, and a little orange-flower and roſe-water.

TO MAKE LEMON-CREAM.

Take a pint of cream, and boil it with the rinds of a lemon cut very thin; when almoſt cold, take out the rinds; beat the yolks of three eggs with a quarter of a pound of ſugar, and ſtir it in your cream; put in the juice of a lemon by degrees, elſe it will break; keep ſtirring till it is quite cold.

ALMOND-CREAM.

Take a quart of good cream, boil it with a bit of lemon-peel, two blades of mace; ſweeten it to your taſte: take four ounces of almonds and blanch them, and beat them in a marble mortar, with two ſpoonfuls of roſe-water; take the whites of ten eggs, ſtrain them to your almonds; beat them together, and rub them through a cullender; mix all together with your cream, and ſet it on the fire, and ſtir it with a whiſk all the time it boils; pour it in a china diſh: ſerve it up cold.

TO MAKE A GOOD CREAM.

Take a pint of cream, and ſweeten it to your taſte; put in a little grated nutmeg, two ſpoonfuls of roſe-water, two ſpoonfuls of ſweet mountain; beat up four eggs well and put it to your cream; ſet it over the fire, and ſtir

ſtir it with a whiſk one way till it turn thick: pour it into china cups, ſo ſerve it.

TO MAKE WHIPT CREAM.

Take a quart of thick cream, and beat the whites of eight eggs well with half a pint of ſweet mountain; mix it well together, and ſweeten it to your taſte with fine grated ſugar; tie a little muſk in a rag; ſteep it in a little cream; whip it up with a whiſk; take the froth with a ſpoon, and lay it on your glaſſes.

SNOW-CREAM.

Take half a pint of thick cream, ſweeten it to your taſte; put in ſome pieces of lemon-peel; beat the whites of four eggs, and mix with your cream; ſet it on the fire, and keep it ſtirring one way till it be thick; run it through a ſearce into your diſh; let it ſtand till it be cold: take the whites of eight eggs, and beat them with a ſnow ſtick till they become entirely as ſnow: put in a little fine grated ſugar; cover your cream with the ſnow; if the ſnow is good you may make it near as high as a ſugar-loaf; take nonpareils of different colours, and ſprinkle them on in what figure you pleaſe: for variety, you may brown one with a hot ſalamander.

FOR CLOUTED CREAM.

Let your milk be milked at night, and ſtrain it in an earthen veſſel that can bear the fire;

let the quantity be ſix quarts; ſet it on a charcoal fire in the pan; diſturb it as little as poſſible; let it ſtand till it juſt pimple up; don't let it boil; take it off, and ſet it in a cool place, and let it ſtand till next morning; take off the cream with a ſlice, and lay it on a china diſh; it eats well with ſtrawberries.

TO MAKE A CHEESE-CAKE.

Take four quarts of milk; earn it as for cheeſe; put it into a ſearce; let the whey drain from it; break the curd well with your hands; then rub it through a cullender; then take half a pound of butter; beat five eggs, grate in a nutmeg, put in a little roſe-water and a little cream if it is too thick; ſweeten it to your taſte; beat it with your hand to make it light; you may add a little butter, and half a pound of currants well cleaned; ſheet your pans with puff paſte, and fill them; put a few more currants on the top and bake them.

TO MAKE A CHEESE-CAKE WITHOUT EARNING.

Take a quart of thick cream, and ſet it over the fire; beat up twelve eggs very well; boil a little mace in your cream; juſt as your cream boils, put in your eggs, with a quarter of a pound of butter; ſtir it a little on the fire, till it begins to curdle; take it off, and throw it in a hair ſearce, ſo that the whey may run from it; gather the curd as for cheeſe; put it into a ſtone-mortar, with half a pound of butter,

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a pint of cream, a glaſs of wine, two ſpoonfuls of roſe-water, half a pound of grated ſugar; then beat and grind theſe all well together, till they are very fine; then paſs them through a cullender; fill your petty-pans but half full: you may put currants in them, if you pleaſe; ſo bake them.

A LEMON OR ORANGE CHEESE-CAKE.

Take the yellow rind of three lemons; boil them very tender, and beat them, with a quarter of a pound of ſugar, very well in a marble mortar; take the yolks of ſix eggs and eight ounces of butter; beat your eggs well, and mix all thoroughly together; lay puff-paſte in your petty-pans: The orange is done the ſame way, only requires more ſugar; fill your petty-pans half full, and bake them.

TO MAKE A PLUM-CAKE.

Take four pounds of currants, and waſh them well the night before you uſe them; ſpread them, and let them be dry; take two pounds of raiſins; pick and chop them ſmall; take ſix pounds of flour, an ounce of cloves and mace, half an ounce of cinnamon and nutmeg, a pound of almonds blanched and cut in ſlices, a pound of ſugar, three-quarters of a pound of citron and orange peel, a pound of butter, a quart of barm or yeaſt, a quart of warm milk or cream; mix all theſe well together, and let it lay to riſe; then work it well together, and let

let it lay before the fire that it may riſe properly; paper your hoop and butter it; put in your cake, and ſmooth it on the top; run a fork down it ſeveral times to keep it from bliſtering; it will take betwixt three and four hours to bake in a quick oven.

TO MAKE A SEED-CAKE.

Take ſix pounds of fine flour well dried, ſix pounds of loaf-ſugar beaten and ſearced, four dozen of eggs; beat them well with a whiſk; take two or three pounds of butter, as you chooſe to have it of richneſs; work it with your hand to a cream; then put in a little of your flour, then a little of your ſugar, then a little of your eggs, and ſo keep doing till all is in; beat it well with your hand all the time: you may put in what quantity you think proper of almonds, citron, orange peel, cinnamon and nutmeg, with caraway-ſeed, as you would have it of richneſs: paper your hoop and butter it; ſo put in your cake; bake it for three hours in a quick oven, then draw it.

N. B. You may make your cake as ſmall as you pleaſe, by proportioning the ingredients.

TO ICE THE CAKES.

Take the whites of ſix eggs, and beat them to a froth, ſo that none of the egg remains; take two pounds of double refined ſugar; grate and ſearce it through a lawn ſieve, and mix it with your eggs; when you take your cake out

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of the hoop, ſcrape off the outſide; take a bruſh and bruſh it all over; lay on your iceing with a knife as even as poſſible; the heat of the cake will harden it.

N. B. This is for the two large-ſized cakes.

TO PARCH ALMONDS.

Take a pound of Jordan almonds; blanch them and dry them; take a pound and a half of loaf-ſugar grated and ſifted; take half a pint of water and a little roſe-water; put it into your preſerving pan, and boil it candy high; then put your almonds into the ſyrup, and keep them ſtirring over the fire till they are dry and criſp; put them in paper, and keep them dry.

TO MAKE WAFER PAPER FOR DROPPING ALMOND BISCUIT ON.

Take half an ounce of iſinglaſs; boil it till it be quite diſſolved; ſtrain it, and beat the whites of ſix eggs well; take a little barm, and mix them well together; make them thick with fine flour; then thin it with gum-water; take a japanning bruſh, and lay the batter over tin plates; ſo dry them in a ſlow oven.

TO MAKE FINE BISCUIT.

Take a pound of fine flour, and dry it well before a fire; grate a pound of double-refined ſugar; take the whites of twelve eggs, and yolks

let it lay before the fire that it may riſe properly; paper your hoop and butter it; put in your cake, and ſmooth it on the top; run a fork down it ſeveral times to keep it from bliſtering; it will take betwixt three and four hours to bake in a quick oven.

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N. B. You may make your cake as ſmall as you pleaſe, by proportioning the ingredients.

TO ICE THE CAKES.

Take the whites of ſix eggs, and beat them to a froth, ſo that none of the egg remains; take two pounds of double refined ſugar; grate and ſearce it through a lawn ſieve, and mix it with your eggs; when you take your cake out

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TO MAKE FINE BISCUIT.

Take a pound of fine flour, and dry it well before a fire; grate a pound of double-refined ſugar; take the whites of twelve eggs, and yolks

yolks of eight; beat them till like cream; take caraway-ſeed and bruiſe it, and put it to your pound of flour and ſugar; ſtrain in the eggs, and beat it for a long time together; for the longer it is beat it will be the lighter; drop them on wafer-paper, and dredge them over with fine ſugar; bake them in a moderate oven; then cut the paper round the biſcuit, ſo keep them dry.

TO CANDY ANGELICA.

Take Angelica in the month of April; boil it till it be tender; then take it up, and ſcrape the outſide off, and lay it on a ſieve to dry; take double its weight of ſugar, and make it in a ſtrong ſyrup; cover it cloſe, and warm it often, but never to boil; lay it on tins to dry, and keep it near the fire.

TO MAKE ELDERBERRY-ROB.

Gather your Elderberries when they are quite ripe; bruiſe them, and ſtrain them, and to every pint of juice take a pound of loaf-ſugar; put it on the fire and let it boil twenty minutes; it will not jelly, but be a very thick ſyrup: when it is cold put a wet bladder over your pots, and leather above; ſo keep it for uſe.

TO MAKE VINEGAR.

To every quart of water take half a pound of coarſe ſugar; let it boil ſome time; ſkim it, then

then put it in a clean tub, and let it ſtand till it be near cold; then toaſt a piece of bread and ſpread it over with barm; let it work four and twenty hours; then put it in a caſk; ſet it as near the fire as you can; it will be fit for uſing in three months: this vinegar is too ſtrong for moſt pickles.

TO PICKLE WALNUTS TO KEEP GREEN.

Take what number of walnuts you pleaſe; put them in a well-glazed jar, and pour boiling vinegar and ſalt over them; let them ſtand a month, and the vinegar will turn black; take out the nuts, and wipe them well; clean your pot, lay in your nuts in rows: to one hundred of walnuts, take half a pint of white muſtard, ſome ſliced horſe-radiſh, a few cloves and blades of mace, an ounce of ginger, and one of black and Jamaica pepper, three or four bay leaves, if you have them; ſtrew on your ſpices betwixt each row of your nuts; then boil as much vinegar as will fill your pots; pour it boiling hot and cover them.

TO MANGOE CUCUMBERS.

Cut a little ſlip out of the ſide of your cucumbers; take out the ſeeds, as little of the meat as you can; put in the inſide bruiſed muſtard-ſeed, a clove of garlick, ſome ginger ſliced, and a little horſe radiſh; tie the piece in again; make a pickle of vinegar, ſalt, pepper, and cloves; boil it and pour it on the mangoes;

mangoes; and ſo for nine or ten days together; when cold, cover them cloſe up with leather.

TO PICKLE CUCUMBERS.

To an hundred of ſmall cucumbers, take a quart of vinegar, and ſome dill-ſeed; ſet it over the fire in a copper-pan and let it boil; then put in your cucumbers; take it off a little, then put it on; don't let it boil; let your cucumbers be warm through; when warm enough, pour them into an earthen jar, and cover it up cloſe till next day; repeat the ſame next day; but the third day put in ſalt, ſome ginger ſlic'd, mace, nutmeg and pepper; ſet it over the fire again and let it boil a little; put in your cucumbers; when they are hot through, take them out till they cool; put them in a jar and ſtrain your liquor over them, and cover them cloſe up with leather.

TO PICKLE CURRANTS.

Take currants before they be ripe; give them a warm in white-wine vinegar, and ſweeten it to your taſte; keep them well covered in this liquor; ſend them to the table for variety.

TO PICKLE RED CABBAGE.

Take the higheſt coloured you can get; cut it in pieces the breadth of a ſtraw, or ſmaller; put it in a jar; take cold vinegar, a handful of ſalt, half an ounce of black and half an ounce of Jamaica

Jamaica pepper, ſome ginger, and pour over your cabbage; be ſure they be all covered; let them ſtand eight or ten days cloſe covered, then uſe them.

N. B. It ſpoils red cabbage to pickle them with hot vinegar.

TO PICKLE BEETRAVE.

Take the largeſt red beet-root; be careful none of the fibres be broke in digging it up, elſe it will bleed and be ſpoiled; waſh it very clean; boil it till it be pretty tender; ſcrape off all the rind or ſkin; cut it in ſlices; lay it in your jar; take vinegar and ſalt, one ounce black pepper and one ounce Jamaica, mace and ginger, and fill your pot ſo that the pickle may cover the roots; keep it for uſe.

N. B. Some chuſe to mix the beet-root with the cabbage.

TO PICKLE WALNUTS.

Take walnuts, about the beginning of July, when a pin will paſs through them; lay them in ſalt and water; let them lye four days; make a freſh brine; let them lye other four days; take them out and wipe them well, and put them into your pickling pot: to one hundred walnuts take near half a pint of white muſtard-ſeed, a head of garlick bruiſed, half an ounce of black pepper, half an ounce of Jamaica pepper, and a quarter of an ounce of mace, a large piece of horſe-raddiſh

cut in ſlices; pour boiling vinegar over them till your pots are full; cover them cloſe; when they are cold, tie them down with a wet bladder, and leather over it: you may keep walnuts in brine for a year; the brine muſt be ſo ſtrong as to bear an egg; boil it and ſkim it; and as you eat your pickled walnuts, you may replace them with walnuts taken out of the brine.

TO PICKLE KIDNEY-BEANS.

Gather your beans very young and tender; you may top and tail them or not as you pleaſe; make a brine of ſalt and water that will carry an egg; put in your beans, and let them lye till they turn yellow; ſtrain them from the brine; dry them well; make a freſh brine in a copper-pan; let it be as warm as you can hold your finger in it; ſet them on a ſlow fire cloſe covered with cabbage-leaves; let them never be warmer for ten or twelve hours, and they will turn as green as a leek; take them off from the brine, and dry them on a ſieve; wipe your beans, and put them in the pickling-pot; take an ounce of Jamaica pepper, an ounce of black pepper, an ounce of ginger, and put it in among your vinegar, and fill up the pot. I have always found cold vinegar do better than when boiled.

N. B. You may do girkins, raddiſh-podds, potatoe-apples, ſamphire, &c. the ſame way.

TO

TO PICKLE MUSHROOMS.

Your muſhrooms muſt be gathered early in the morning; one that is cloſe and round is worth many that are open; put them into water; when they are all done, take them out and put them into a ſtew pan; add a good deal of ſalt, whole pepper, mace, nutmeg and cloves; let them boil in their own liquor ſixteen minutes on a quick fire; take them off and throw them into a cullender, and let them ſtand till they are cold; then take all the ſpices you uſed in the boiling them; the one half white-wine vinegar, ſome ſalt, and a few bay-leaves, if you have them; give it a boil or two; there muſt be enough of liquor to cover them; put them in bottles, and keep them for uſe; pour in a little ſweet-oil in the mouth of the bottle: obſerve the liquor muſt be changed often.

TO PICKLE PURSLAIN.

Take large green purſlain; ſtrip off all the leaves; lay the ſtalks in an earthen pot; take ſome whey, and put ſalt in it to make it like brine; boil it, and ſkim it well from the curd; put in ſome Jamaica pepper; let it ſtand till it be cold; then pour off the clear; pour it upon the purſlain, and tie it down cloſe; let it ſtand in a cool place; when you want to uſe them, take a few out at a time, and waſh them till the water come quite clear from them;

though they ſtink and look black, don't mind it; put them in cold water over the fire cloſe covered; let them ſcald two hours, but not boil till they are very green; then boil vinegar, ſalt, pepper, and ginger; drain the ſtalks from the water, and put your pickles to the vinegar.

TO PICKLE ONIONS.

Take ſmall round white onions; lay them in ſalt and water two days; then drain them, and dry them in a cloth; boil the beſt vinegar with black pepper, Jamaica ſpice, ginger, and ſalt; when cold, put them in it; you may do them with hot vinegar if you pleaſe; don't peel the onions but as you uſe them; becauſe they diſcolour when peeled.

ANOTHER WAY TO PICKLE MUSHROOMS.

Take ſmall button-muſhrooms, and rub them clean; put them in milk and water and ſalt; then peel them; take them out of that, and put them in freſh water, milk, and ſalt to boil, put in a few cloves and onions; when they have boiled a little take them off, and take them out of that and lay them betwixt two pieces of clean flannel; take as much vinegar as you think will cover them; boil it with pepper, mace, nutmeg, and ginger; let it ſtand till it cool; put your muſhrooms

muſhrooms into wide-mouthed bottles; pour your pickle over them, and put a little ſweet oil to keep the air from them.

TO MAKE FINE GINGER-BREAD.

Take two pounds of treacle, half a pound of brown ſugar, an ounce of ginger beat fine, a little Jamaica pepper, caraway-ſeed, and coriander half an ounce beat fine, a pound of butter; melt your butter and treacle together; mix it with as much flour as will make it into a very ſtiff paſte; cut it in what form you pleaſe; have a pan with boiling water on the fire: when your ginger-bread is enough, dip it into the pan, and return it into the oven for a minute, it will give it a fine gloſs.

N. B. You may put in orange-peel, lemon, or citron, if you pleaſe.

SYRUP OF CLOVE GILLI-FLOWERS.

Cut off all the red part of the flowers from the white, and wet them a little with water; put them in a jar or earthen pot, ſtopt and tied ſo tight that no air can get in; ſo ſet it in a pan of water, and put a weight on the top to keep it from falling; let it boil two hours; ſtrain out the juice to a pint; put a pound and a half of fine ſugar to it; ſet it on the fire in a clean tinned ſauce-pan; ſtir and ſkim it till it begins to boil: when you put it into pots or bottles, wet a bladder with brandy, and tie it cloſe up.

TO CANDY VIOLETS, ROSES, GILLIFLOWERS, OR ANY OTHER FLOWERS YOU FANCY.

Break ſome fineſt ſugar into lumps, and dip them piece by piece in water, and put them to melt over the fire in a clean well tinned veſſel; when it boils ſtrain it, and ſet it over the fire again, and boil it till it draws in hairs; and then put in your flowers and ſet them in glaſſes, or what you chuſe; when the candy is hard, break it in lumps; dry it either in a ſtove or in the ſun, as the ſeaſon is, and it will look very pretty.

TO MAKE SYRUP OF CLOVES.

Take a quarter of an ounce of cloves; beat them; take three pounds of lump-ſugar, and make it into a ſyrup, with a quart of water; ſkim it; put in your cloves, with half an ounce of cochineal; boil it fifteen minutes, ſo ſtrain it through a piece of muſlin; let it ſtand till it be cold; ſo bottle it; it will be as good as the other.

SYRUP OF MAIDEN-HAIR.

Take maiden-hair, and infuſe it as you do tea; make a ſtrong tincture; to a pint of tincture take three pounds of white ſugar candy and boil it with the tincture; let it be a very ſtrong ſyrup; put in a gill of orange-flower water, and it will be exceeding good; bottle it in halfpint bottles, with bladders over the corks.

TO

TO PRESERVE KIDNEY-BEANS TO EAT AS FRESH.

Take young kidney-beans; put them in ſalt and water, and ſhift them every day for four days; make a freſh brine in a copper-pan; put in your beans; ſet them on a ſlow fire, cloſe covered with cabbage-leaves to green; let them never be hotter than you can hold your finger in them; lay them on a ſearce to drain; put them on pewter-diſhes to dry; then put them into a box lined with white paper: when you uſe them, ſoak them among warm water ſome hours; ſhift the water to take out the ſalt, and uſe them as you do freſh beans.

TO MAKE THE BEST USQUEBAUGH.

To two gallons of brandy, put a pound of Spaniſh liquorice, half a pound of raiſins of the ſun, four ounces of currants, ſome tops of thyme, balm, ſavory, and mint, and flowers of roſemary, of each two ounces; cinnamon and mace bruiſed; nutmegs, anniſe-ſeeds, and coriander-ſeeds bruiſed likewiſe, of each four ounces; citron or lemon, and orange-peel ſcrap'd, of each an ounce. Let all theſe infuſe forty-eight hours in a warm place, often ſhaking them; then ſet them in a cool place for a week; after which decant off the clear liquor, and put to it an equal quantity of good white port, and two pints of canary; ſweeten the whole with refined ſugar.

TO

TO MAKE ORANGE-WINE.

Put twelve pounds of fine ſugar and the whites of eight eggs, well beat, into ſix gallons of ſpring water; boil it an hour and ſkim it well; when pretty cool, put in the juice and rind of fifty Sevile oranges, and ſix ſpoonfuls of good barm; after it has ſtood two days, put it into your caſk with four bottles of French white-wine, or two bottles of good mountain: ſome uſe Rheniſh wine. Put in alſo the juice of a dozen of lemons; you muſt let the juice of the lemons and wine, and two pounds of double refined ſugar, ſtand cloſe covered twelve hours before you put it in the caſk to your orange-wine; clear off all the ſeeds: the lemon peels muſt be put in with the oranges, half the rind put in the caſk; it will be fit to bottle in ten or twelve days.

RAISIN-WINE.

Take two pounds of raiſins ſton'd; two pounds of ſugar, the rind of two lemons and the juice of four; then pour on two gallons of boiling water, and let it ſtand in a veſſel covered four or five days; ſtrain it out and bottle it up; it will be fit to drink in four days: it is very cool and pleaſant in cold weather.

CURRANT-WINE.

Take four gallons of currants, not over ripe, and ſtrip them off the ſtalks into an earthen veſſel;

veſſel; take nine quarts of water, and five pounds and a half of fine ſugar; boil the ſugar and water; ſkim it well; pour it boiling hot on the currants; let it ſtand forty-eight hours; then ſtrain it through a flannel into a jar: let it ſtand fourteen days to ſettle; ſo bottle it.

COWSLIP-WINE.

Take three gallons of water and three pounds of ſugar; boil it an hour and ſkim it; put it in a caſk with the rinds of three lemons, and ſix quarts of cowſlips pick'd from the ſtalks; toaſt a ſlice of loaf-bread; when cold ſpread ſome barm on it, and put it into the caſk, with a ſquare bung hole; ſtir it, and let it work three or four days; then tap it with a cock, with a thin cloth over it, but a baſket cock is beſt: draw it off in another veſſel, and put to it a quart of brandy and the juice of four lemons; a quarter of a pound of loaf-ſugar, a quarter of a pound of ſton'd raiſins; bottle it after ſtanding three weeks: ſome uſe Malaga or mountain wine inſtead of brandy; but this as you chooſe; it will keep a year in a cool place.

BIRCH-WINE.

To four quarts of birch-water, put two pounds of loaf-ſugar, the juice and rind of two Sevile oranges, and a pint of French brandy; boil it half an hour; after ſkimming let it ſtand to cool and ſettle; put it into a clean earthen veſſel, put to it a little freſh barm; let it work

twelve

twelve hours close covered; then turn it; after ſtanding ſix weeks, you may bottle it: it will be fit to drink in five or ſix weeks.

MORELLA-CHERRY WINE.

Let the cherries be quite ripe; pick off the ſtalks and bruiſe your fruit, but don't break the ſtones; put them in an open veſſel together; let them ſtand twenty-four hours; preſs them, and to every pint put one pound of fine ſugar; put it up in your caſk, and when it has done working, ſtop it cloſe; let it ſtand about three months and bottle it: it will ſoon be fit for drinking.

RASPBERRY-WINE.

Bruiſe your raſpberries, and put them in an open pot twenty-four hours: then ſqueeze out the juice, and to every pint put one pound and a half of ſugar, and two bottles of good mountain; put all in a veſſel, and when done working ſtop it cloſe; when it is fine bottle it: it will be fit for drinking in two months.

TO MAKE GOOSEBERRY-WINE.

To every four pounds of gooſeberries, put a pound and a quarter of ſugar, and a quart of pure water; bruiſe the berries, and let them ſteep four and twenty hours in water; take care to ſtir them often, preſs the liquor off, and put your ſugar to it; put it in a proper veſſel, and when done working ſtop it up, and let

let it ſtand a month; rack it off into another veſſel, and let it ſtand five weeks longer; when you bottle it put a ſmall lump of ſugar in each bottle; it will be fit to drink in three months.

CYDER.

Have a tub with a cock or ſpiggot at the bottom, and put in it the one half of your apples a little bruiſed, and pour on them the juice of the other half; let it remain ſo three or four days; then draw it off into another veſſel: if it is not clear, pour it on the apples again till it run fine; infuſe a little iſinglaſs in ſome of your cyder; which, mixt with it in the caſk, will fine it down.

TO MAKE MEAD.

Into twelve gallons of water, ſlip the whites of ſix eggs, mixing them well together; and to this add twenty pounds of honey; let the liquor boil an hour, and when boil'd add cinnamon, ginger, cloves, mace, and a little roſemary; as ſoon as it is cold put a ſpoonful of barm to it and turn it up, keeping the veſſel filled as it works; when it has done working ſtop it up cloſe; and, when fine, bottle it off for uſe.

TO MAKE PERRY.

The beſt fruit for this uſe, are ſuch as are leaſt fit for eating; ſuch as the barberry-pear, horſe-

horſe-pear, boreland-pear, and chock-pear, and ſtill the redder they are the better.

The method of preparing perry is perfectly the ſame with that of cyder,—only note, that the fruit muſt be perfectly ripe: ſome mix crabs with them to mend the liquor.

TO GIVE WINE A FINE FLAVOUR.

Pluck the flowers of the vine when they are juſt come forth and in full bloſſom; dry them in the ſhade, but by no means in the ſun or a ſtrong heat; powder and preſerve them; take what quantity you pleaſe of this powder; tie it up in linen, and hang it in the caſk when the new wines begin to ferment: nothing is more natural, and nothing more efficacious in giving wine a high flavour than this powder: the quinteſſence of the virtues of a plant lies in the flower; by drying them ſlowly, the evaporating ſubtile particles are concentrated, and they may be preſerved a long time without loſing the virtue: when the wine ferments, it acts on theſe fine particles, and the motion thereby occaſioned is ſufficient to mix them with the wine, which, by theſe means, contains all the virtues of the grapes and flowers.

N. B. Wines of no fine flavour, may be much meliorated by this method.

OF ORDERING AND FINING OF WINES.

Take half a pound of iſinglaſs ſteep it in half a pint of the hardeſt French wine that can be got

got, ſo that the wine may fully cover it; let them ſtand twenty-four hours; then pull and beat the iſinglaſs to pieces, and add more wine, and four times a day ſqueeze it to a jelly, and as it thickens add more wine; when it is fully and perfectly jellied, take a pint or more to a hogſhead; then over-draw ſix or eight pints of the wine you intend to fine, which mix well with the ſaid quantity of jelly; then put this mixture into the caſk of wine you intend to fine; beat it well with a forked ſtick or ſtaff, and fill it top full.

N. B. French wine muſt be bung'd up very cloſe, but not the Spaniſh; iſinglaſs raiſes the lees to the top of ſtrong wines, but in weaker precipitates them to the bottom.

The colour of claret may be mended by adding red wine, tent, or Alicant; or by an infuſion of turnſole made with four pints of the wine, and then putting it into the caſk well ſtopped and rolled for a quarter of an hour: this infuſion is ſometimes twice or thrice repeated, according as more colour is to be added to the wine.

Claret over red, is amended with an addition of white wine.

White wines that are brown, are thus remedied: Take ſome alabaſter powder, overdraw ſix or eight pints; then put in the powder at the bung; ſtir and beat it well with the ſtaff, and fill it top full; the more the wine is

ſtirred the finer it will come upon the lee; that is, the finer it will be.

To make ſack white; take two pounds of white ſtarch, and four pints of milk, and boil them together two hours; when cold, beat this well with a handful of white ſalt; then put them into the butt, and beat them well with the ſtaff, and the wine will be pure and white.

One pound of the fore-mentioned jelly of iſinglaſs, takes away the brownneſs of French and Spaniſh wines, mixed with five pints of wine, according as it is brown and ſtrong, more or leſs to be uſed; then over-draw the caſk about ſixteen pints, and uſe the rod; then fill it up full, and in two or three days it will be fine and white.

The firſt buds of the black currants infuſed in wine, eſpecially Rheniſh, makes it diuretic and more fragrant in ſmell and taſte, and ſo does clary; the inconveniency is, the wine becomes more heady: a ſecret remedy whereof are elder-flowers, viz. bown tree, added to the clary, which alſo improves the fragrancy.

To help brown Malagas and Spaniſh wines, take powder of orris-roots and ſaltpetre, of each four ounces; the whites of eggs, whereto add as much ſalt as will make a brine; put this compoſition into the wine, and mix them with a ſtaff.

To meliorate muddy and tawny clarets, take of rain-water one quart, the yolks of eight eggs,

eggs, a handful of ſalt; beat them well, and let them ſtand ſix hours, before you put them into the caſk; then uſe the rod, and in three or four days it will come to itſelf.

To mend the taſte and ſmell of Malaga, take of the beſt almonds, and, with the wine to be cured, make an emulſion; then take the whites and yolks of twelve eggs; beat them together with a handful of ſalt, and put them into the pipe, and uſe the rod

To mend the ſmell and taſte of French and Rheniſh, which are foul, take to an aulm of the wine, of honey one pound, elder-flowers one handful, orris-powder an ounce, one nutmeg, a few cloves; boil them in a ſufficient quantity of the wine to be cured, to the conſumption of half; when it is cold ſtrain and uſe it with the rod: ſome add a little ſalt; if the wine be ſweet enough, add of ſpirit of wine one pound to a hogſhead, and give the caſk a ſtrong ſcent.

N. B. Spirit of wine makes any wine briſk, and fines it without the former mixture.

A lye of the aſhes of vine branches, viz. a quart to a pipe, being beat in the wine, cures the ropiſhneſs of it; and ſo doth infallibly a lye of oak aſhes. For Spaniſh ropy wine, rack it from its lees into a new-ſcented caſk; then take allum one pound, orris-root powdered half a pound; beat them well into the wine with a ſtaff; if the wine ſhould alſo prove brown, put three bottles of milk to a pipe.

The following mixture meliorates vitious wines both in ſmell and taſte, eſpecially French: Take of the beſt honey one part, of rain-water two parts, and one third of ſound old wine of the ſame kind; boil them on a gentle fire to a third part, ſkimming them often with a clean ſkimmer; for which purpoſe, have a pail of pure water ſtanding beſide you to rince it in; let it cool, and it will mend the hard taſte of the wine, by putting two pints of it to a hogſhead, and uſing the rod; then let it reſt ſix or eight days; if mild enough, you may add ſome white muſtard-ſeed bruiſed.

To mend and preſerve the colour of clarets, take red beet-roots a ſufficient quantity; ſcrape and waſh them clean, and cut them into ſmall pieces; then boil them in a ſufficient quantity of the ſame wine, to the conſumption of a third part; ſkim it well, and, when cool, decant off what is clear, and uſe the rod; or, take of the wine and honey, of each two pounds, rain-water a bottle, twelve beet-roots; boil them to half, and, when cool, decant, &c. as above.

N. B. If you can get any mulberries, a few handfuls added to the mixture will be of ſervice.

To prevent ſouring of French wines, take a ſufficient quantity of grains of Paradiſe; heat them in a pan, and hang them, or put them looſe into the caſk: ſome uſe lavender tops.

To help ſour French wines, take a ſufficient quantity of good wheat, and pick out four

ounce

ounces of the beſt grain, and boil it in fair water till it break, and, when cold, put it into the caſk in a bag, and uſe the rod; or take ſix or eight large ſticks of cinnamon and bung them up well.

To help Spaniſh ſour wine, firſt rack it into a clean caſk, and fill it up with five or ſix pints of water, and put in four ounces of burnt chalk, and after three or four days, it muſt be rack'd again and filled up with rain-water, if the firſt time does not do it.

The beſt time to rack wine is the decreaſe of the moon, and when the wine is free from fretting, the wind being at North-Eaſt or North-Weſt, and not at South, the ſky ſerene, free from thunder and lightning.

To help Malagas that will not fine, take crude tartar powdered, ſifted, and dried, two pounds; mix it with the whites of ſix eggs, dry, powder, and ſift them again; then overdraw the pipe as much as will ſerve to mix with this powder, and fill the pipe therewith, beating it with the ſtaff, and this wine will be fine in ten days.

Another ſpeedy way to fine French wines. Hang a piece of ſcent in the caſk, and when it is burnt out, put in a pint of the beſt ſpirit of wine, and ſtir it about: Some add a little ſalt well dried; this fines the wine in twenty-four hours. Allum put into an hog's bladder keeps wine from turning flat, faint, or brown,

and beaten with the whites of eggs, removes its ropiſhneſs.

Flat wines recover with ſpirit of wine, raiſins, and ſugar, or molaſſes; and ſacks by drawing them on freſh lees,

Our wine-coopers of later times, uſe vaſt quantities of ſugar and molaſſes to all ſorts of wines to make them drink briſk and ſparkling, and to give them a ſpirit, as alſo to mend their bad taſte, all which raiſins, cute, and ſtum perform.

TO MAKE HYPOCRAS.

Take of cardamums, carpo balſamum, each half an ounce; coriander-ſeeds prepared, nutmeg, ginger, of each two ounces, and two drachms of cloves; bruiſe and infuſe them in four pints of ſherry eight and forty hours, often ſtirring it, and put in three pints of milk and a pound of ſugar-candy, and ſtrain it through a jelly-bag till it be fine.

TO PRESERVE CHERRIES.

If they are morella cherries, take ſome jelly of white currants, drawn with a little water run through a jelly-bag, about three half pints, to which put three pounds of fine ſugar; ſet it on a quick fire, ſkim it, and put in two pounds of your ſtoned cherries; when they are tender boil them faſt till they are clear; then put them in pots or glaſſes for uſe: for red cherries, take red currant-jelly, and do them the ſame way.

TO

TO PRESERVE RED CURRANTS.

After your currants are maſhed, put them through a thin ſtrainer; take a pint of juice, and a pound and a half of ſugar, with ſix ſpoonfuls of water; boil and ſkim it well; then put in half a pound of ſtoned currants; boil them faſt till they are clear and jelly; cover the pots or glaſſes you put them in, as you do other ſweet-meats.

N. B. Stir all kinds of ſmall fruit till they cool, to mix with the jelly.

*** White and amber currants are done the ſame way.

TO PRESERVE RASPBERRIES.

Put two pounds of ſugar to three half pints of raſpberry-juice; boil and ſkim it well, and then put in near a pound of large raſpberries; let them boil faſt to a clear jelly; a quarter of an hour will do them after they begin to boil; put the raſpberries in the pots firſt; then ſtrain the jelly from the ſeeds and put it to them: paper them as other ſweetmeats.

RASPBERRY-JAM.

Maſh them, and ſtrain the one half; put the juice to the other half that has the ſeeds in it; boil it faſt for a quarter of an hour; put twelve ounces of ſugar to a pint of raſpberries; boil it till it jellies, and keep it for uſe.

TO

TO PRESERVE APRICOTS.

Stone and pare four dozen of the largeſt you can get, and cover them with three pounds of fine grated ſugar: let them ſtand ſeven or eight hours; then boil them on a ſlow fire till clear and tender, ſo let them ſtand till the next day, covered cloſe with a paper; then boil a quart of apple-jelly with two pounds of ſugar, and whilſt that is boiling make your apricots ſcalding hot; then put the jelly to them and boil them together, but not too faſt; when the apricots riſe in the jelly very well, they are done: paper them up cloſe, as other ſweetmeats.

APPLE-JELLY FOR ALL SORTS OF SWEET-MEATS.

When your apples are pared, cored and quartered, put them into boiling water, juſt as much as will cover them, and boil them as quick as poſſible: when they are all to pieces, put in a quart of water more; then boil it half an hour, and run it through a jelly-bag.

BARBERRY-DROPS.

Strip your barberries off the ſtalks; put to them a little water to keep them from burning; maſh them when they are boiling, till they are very dry; then rub them through a hair ſieve, and ſtrain them through a ſtrainer: when ſcalding hot put a pound of ſugar grated to half a pint

a pint of the pulp; let it ſcald, and drop it on glaſſes; put it in a ſtove, and when it is candied turn it.

TO PRESERVE BARBERRIES.

Stone your barberries in ſprigs, and for a pound of them make a ſyrup of a pound and a half of fine ſugar, with a pint of water; let the barberries have a boil in this ſyrup; ſcald them every day for five days, but don't let them boil; put them in a pot, and when you uſe any, heat the reſt, elſe they will not keep.

TO MAKE CHINA-CHIPS.

Cut the rind of China or Seville oranges very thin, in long chips; boil them tender; when drained put them into a very thick cold ſyrup of clarified ſugar; let them lay two days, then ſcald them; when cold, dry them in a ſtove on earthen plates.

TO MAKE ORANGE DROPS.

Squeeze a dozen of oranges; boil the rinds tender; cut out the whites and beat the yellow rinds very fine; rub it through a hair ſieve; put a pound and a half of fine ſifted ſugar to a pound of the pulp; mix it well, and make it ſo thin with the juice that it will drop from a tea-ſpoon; drop it on glaſſes and ſet it by the fire; after ſtanding two hours, put it in a ſtove; turn it next day, and it will be dry in four and twenty hours.

TO

TO CANDY ORANGE-FLOWERS.

When the flowers are full-blown, pick the white leaves, and put them an hour or two in water; then put them in boiling water and boil them till tender; drain them from the hot water, and put them into cold water till you make as much ſyrup of fine ſugar as will cover them; put a pint of water to a pound of ſugar; put in the leaves when the ſyrup is cold, and let them lay all night; ſcald them the next day, and let them lay three days in the ſyrup; then make another ſyrup thicker; when it is cold, drain the flowers from the thin ſyrup, and put them into the thick; let them lay two or three days; then make them juſt hot, and, in two days more, lay them out on glaſſes, ſpread thin, ſift on fine ſugar, and put them in a ſtove: five hours will dry them on one ſide; then lay them on paper, with the wet ſide uppermoſt, and ſet them in the ſtove till very near dry; then pick them aſunder, and put them in a ſtove till they are quite dry.

TO ICE ALMOND-CAKES.

Beat a pound of almonds very fine with roſe-water; mix in half a pound of ſifted ſugar, and make it up in long or round cakes, as you pleaſe; put them before the fire till they are dry on one ſide; then turn them; when dry on both ſides, beat ſome fine ſifted ſugar, and as much white of egg as will juſt wet it; beat it

it with a ſpoon, and as it grows white, put in a little more egg, till it is thin enough to ice the cakes: then ice one ſide; dry it before the fire, and be ſure that it is dry before you ice the other ſide.

TO MAKE ORANGE OR LEMON PUFFS.

Grate the outſide of two large oranges or lemons; beat them with a pound of fine-ſifted ſugar well in a mortar; grind it well with a peſtle, and make it up in a ſtiff paſte, with ſteep'd gum-tragacanth; beat the paſte out again; roll or ſquare it, and bake it on a cool oven on papers and tin-plates.

RATAFIA PUFFS.

Beat half a pound of bitter almonds very ſtiff, with a pound and a half of ſifted ſugar; make it up to a ſtiff paſte with whipt whites of eggs; after it is well beat in a mortar, make it up in little loaves; then bake them in a very cool oven on paper and tin plates.

CHOCOLATE PUFFS.

Grate three ounces of chocolate; ſift it through a hair ſieve; add a pound of fine ſifted ſugar to it; make it up with whipt whites of eggs into a paſte; beat it very well in a mortar, and make it up in what faſhion you pleaſe; and bake it as the others.

RATAFIA DROPS.

Beat half a pound of butter and half a pound of ſweet almonds very fine, with roſe water; mix a pound of ſifted ſugar, with the whites of five eggs, beat to a froth; ſet them on a ſlow fire; ſtir them till they begin to be ſtiff; when quite cold, make them in little round drops; bake them as before.

SUGAR PUFFS OF ALL SORTS.

Make up ſome very fine ſifted ſugar into a paſte, with gum tragacanth well diſſolved in roſe-water; beat it in a mortar; ſquirt it and bake it in a cool oven; colour what you deſign red with carmine; blue with powder blue; yellow with gambouge; a yellow and blue mixed will make green.

TO MAKE ALL SORTS OF FRUIT CREAM.

Take ſcalded fruit, or ſweetmeats; rub it through a hair ſieve; boil your cream; when it is cold, put in your fruit till it is pretty thick.

A GOOD SACK POSSET.

Beat the yolks of twelve eggs, and the whites of ſix; put to that a pint of ſack, or what wine you chooſe, with half a pound of ſugar; keep them ſtirring till they turn white and begin to thicken; boil a quart of cream on another fire, and pour it into the eggs and wine; ſtir it round,

round, and let it ſtand fifteen minutes before you eat it.

TO CANDY ANY FLOWERS OR GREENS IN BUNCHES.

Wet your flowers with ſome fine gum-water; dry them by ſhaking them in a cloth; then dip them in fine ſifted ſugar, and hang them on a ſtring a-croſs the grate to dry; let them hang a few days, that they may be quite dry.

TO SUGAR ALL SORTS OF SMALL FRUIT.

Dip the fruit in the white of an egg well beat; let it lye on a cloth, that it may not wet: then roll the fruit in fine ſifted ſugar till it is quite covered over with the ſugar; dry it well in a ſtove, or before the fire; it will keep a week.

TO SCALD ALL SORTS OF FRUIT.

Put the fruit into ſcalding water, as much as will almoſt cover your fruit; ſet it over the fire till it is tender; turn the fruit when the water does not cover it; when very tender, lay a paper cloſe to it, and let it ſtand till it is cold; put half a pound of ſugar to a pound of fruit, and let it boil till it looks clear: all fruit ſhould be done whole put pippins, they are beſt quartered, with a little orange-peel and lemon-juice put in them.

TO MAKE CURRANT CLEAR CAKES.

After your currants are ſtript and waſhed, take four quarts of them, and put to that a quart of fair water; boil it well, and run it through a jelly-bag; put a pound and a half of ſifted ſugar to a pint of jelly; let your jelly juſt boil; ſhake in the ſugar, ſtirring it well, and make it ſcalding hot; put it through a ſtrainer in a broad pan, to take off the ſcum, and fill it in pots; when candied, turn it on a glaſs-plate till one ſide is dry; then turn and dry the other ſide.

RASPBERRY CLEAR CAKES.

Take half raſpberries, half white currants, and cover them almoſt with water; boil them well fifteen minutes, and run them through a jelly-bag; for each pint of jelly, have ready a pound and a half of fine ſifted ſugar; when your jelly boils, ſhake in your ſugar, and ſtir it well, and ſet it on the fire till it is melted; ſtrain it in a broad pan to prevent the ſcum, and dry it as before directed.

RASPBERRY DROPS.

Maſh the berries; put in a little water; boil and ſtrain them; then take half a pound of fine ſifted ſugar; wet the ſugar to make it as thick as paſte; make it ſcalding hot; drop it on your paper; it will ſoon dry.

N. B. Some perſons chuſe to put in a few drops of ſpirit of vitriol.

ORANGE

ORANGE OR LEMON CLEAR CAKES.

Run a quart of pippin jelly through a bag, and take the meat of four oranges; boil them together, and rub it again through a jelly bag; then take half a gill of orange-juice and a quarter of a pound of fine ſugar; boil it, and put it in your jelly, with the rind of an orange well boiled and finely ſhred; make them ſcalding hot together; to a pint of jelly, take a pound and a half of ſugar; boil the ſugar to a candy; then put in your jelly, but not all; as ſoon as done boiling, put in the remainder of your jelly; ſet it over the fire till the candy is all melted; but take care it does not boil; dry it as before.—Lemons are done the ſame way.

A GOOD GREEN FOR COLOURING CLEAR CAKES.

Put an ounce of gambouge in a quarter of a gill of water to melt; diſſolve an ounce and half of ſtone-blue; mix the two colours with four ounces of fine ſugar, and a little more water, and let it boil; a ſpoonful of this will give a fine green to a pint of clear cake of the white ſort.

TO MAKE A MARMALADE OF CHERRIES.

Boil a pound of ſugar, and take a pint of ſtoned cherries and boil them with the ſugar; then take a pint and a half of currant-jelly and put to it; boil it ſome time, and put it in glaſſes.

MARMALADE OF CURRANTS.

When picked and clean, put them in a pan, with their weight of ſugar; let them boil to a ſtrong jelly, and put it in pots: This is for red currants; white ones muſt be well bruiſed, and rubbed through a coarſe ſieve.

TO MAKE MACARONI.

Make ſome flour into a paſte with two eggs; roll it out thin, and cut it like ſtraws, about an inch and an half long; boil a pint of milk, and the ſame quantity of cream, in a ſtew-pan; part the paſte bit from bit, and put it in; let it boil to the thickneſs of cream, ſtirring it to keep it from ſticking to the pan; ſweeten to your taſte, and ſtrew on ſome fine beat cinnamon ſifted: garniſh with Sevile orange.

TO BURN ALMONDS.

Criſp a pound of Jordan almonds before a hot fire, or in an oven; take twelve ounces of ſugar, one ounce of grated chocolate, and half a gill of water; boil theſe almoſt to a candy; then put in the almonds, and let them be juſt hot; take them off and ſtir them, till the ſugar grows dry, and hangs about the almonds; turn them out of the pan on a paper, and put them aſunder.

TO MAKE ITALIAN BISCUIT.

Mix a pound of double-refined ſugar, beat and ſifted, with a pound of the fineſt flour you can

can get; beat ſix eggs very well, and ſtrain them through a ſieve; put them into a marble mortar; put in ſome of your flour and ſugar, and beat it very well; ſo put in the reſt little by little, till all be in; you muſt beat it an hour without ceaſing; then put a ſheet of wafer-paper on a plate of tin; drop on the biſcuit; ſtrew on ſome confected carvie, and bake them off as quick as you can.

TO BOTTLE GOOSEBERRIES.

Take ſuch as are three parts grown; pick off the tops and ſtalks; boil ſome hard water in a pan, and take it off the fire, and put in your berries; let them lay till they are white, only be careful they don't crack; ſtrain them in a cullender; lay them on a coarſe cloth, and cover them with another; let them lay till they be cold; bottle them, and ſtamp the bottle on ſomething ſoft to ſettle them; cork them tight, and dip the necks of the bottles in melted roſin, and keep them in a cool place.

OF CANARY-BIRDS.

Canary-birds that are kept tame, will breed three or four times in the year; they uſually begin in April and breed in May and June, though ſometimes in July and Auguſt: Towards the middle of March begin to match your birds, putting one cock and one hen in a ſmall cage; and when they have been ſo long together that they are perfectly reconciled and

well pleaſed with each other, towards the end of March or the beginning of April, put them into the breeding-cage for that uſe; let it be full large, ſo that the birds may have the more room to fly and exerciſe themſelves; let there be two boxes in the cage for the hen to build in; becauſe ſhe will ſometimes hatch a ſecond brood before the firſt are fit to fly, leaving the care of them to the cock, to feed and bring them up, whilſt ſhe breeds in the other box; therefore, if ſhe has not a ſpare box to build in, ſhe will be apt to make her neſt upon the birds (as it ſometimes happens) and ſmother them, or build ſo near, that they will ſpoil one another. Whilſt your birds are a-pairing, feed them with ſoft meat, egg, bread, maw-ſeed and a little ſcalded rapeſeed, hardly a third part of egg; this laſt and the bread grated fine, and ſo mix it all together. When they have young ones, give the ſame ſoft victuals freſh every day, and let them have freſh greens likewiſe, ſuch as cabbage-lettuce now and then; but give them more conſtantly chickweed with ſeeds upon it; towards June ſhepherd's-purſe, in July and Auguſt plantain, and before they have young ones give them groundſoil with ſeed upon it. I would recommend to ſuch perſons as breed only a few birds for their diverſion, to uſe very large cages, it being much the beſt way; but thoſe who intend to breed a number, ſhould prepare a room for that purpoſe.

Let

Let the ſituation of it be ſuch, that the birds may enjoy the benefit of the morning ſun, which is both delightful and nouriſhing; and let wire, inſtead of glaſs, be at the windows, that they may have the advantage of the air, which will add to their health and make them thrive the better; keep the floor of the room clean, ſometimes ſifting fine dry gravel or ſand upon it, and often removing the dung and other foul ſtuff: You muſt take care to fix neſt-boxes, and back cages in every convenient corner and place of the room, at leaſt twice the number that you have of birds, that they may have the more variety to chooſe a lodging to their minds; for ſome love to build high, and ſome very low; ſome in a light place, and others will chooſe a dark place to build in.

There ought to be two windows in the room, one at each end, and ſeveral perches at proper diſtances, for the birds to ſettle upon as they fly backwards and forwards.

You may ſet likewiſe a tree, in ſome convenient part of the room; it will divert the birds, and ſome of them will like to build in it: you muſt obſerve that their neſt is ſecure from falling through, and if in danger, to tie the tree cloſer to prevent it, and they will hatch there as well as in any other place. Remember not to put too many birds together; eight or ten pairs are enough for a middling room: When your birds are firſt paired, as directed before, turn them into the room, where they will

will live, as it were, a conjugal life; and notwithſtanding there are ſeveral male and female birds in the ſame room, one cock and one hen, as they firſt coupled together, will keep conſtant to each other, and both concur and aſſiſt in ſitting and feeding their young; for the cock-bird takes his turn in building the neſt, ſitting upon the eggs, and feeding the young, as well as the hen.

OF THEIR NESTS, AND HOW TO ORDER THEIR YOUNG.

You muſt furniſh the birds with ſtuff for making their neſts, ſuch as fine hay, wool, cotton and hair; let theſe materials be thoroughly dry; then mix and tie them up together in a net, or ſome ſuch thing, ſo that the birds may eaſily pull it out as they want it, and let it be hung in a proper place in the room for that purpoſe.

They build a pretty neſt, about which they will ſometimes be ſo induſtrious, as to begin and finiſh it in one day, though they are generally two or three days in making their neſt; the hen lays commonly four or five eggs, and ſits fourteen days.

When the young are hatched, leave them to the care of the old ones to nurſe and bring up, till they can fly and feed themſelves. The hen, as I ſaid before, by reaſon of their rankneſs in being kept together, and provided with all things neceſſary at hand, without any trouble in

in ſeeking their food, &c. will ſometimes build and hatch again before the firſt can ſhift for themſelves; the care of which ſhe transfers to the cock-bird, who will feed and nurſe them himſelf, ſupplying the part of both parents, while ſhe brings on and attends her new progeny: But it is not ſo with thoſe birds that live at large in the fields; they obſerve their ſeaſon for breeding, and after they have hatched, company with the brood till their young are grown up, and able to provide for themſelves.

When the young Canary-birds can feed themſelves, take them from the old ones and catch them; if they are flying about the room to catch them, bring a ſpare cage with ſome ſoft victuals in it, taking the other meat that is in the room away, and placing the cage there in its ſtead, with the door open and a ſtring faſtened thereto; then ſtand at a diſtance, and the old ones will preſently, for the ſake of the meat, intice the young ones into the cage; then pull the ſtring, and ſhut in as many as you can, and cage them.

Let their meat be the yolk of an egg hard boiled, with as much of the beſt bread, and a little ſcalded rapeſeed; when it is boiled ſoft, bruiſe the ſeed fine, and put a little maw-ſeed amongſt it, and mix it all together, and give them a ſufficient quantity freſh every day; never let it be ſtale or ſour: Beſides this, give them a litle ſcalded rape-ſeed, and a little rape

and

and Canary by itſelf. You may keep them to this diet till they have done moulting, and afterwards feed them as you do the old ones, taking away their ſoft meat, unleſs at any time they are ſick, then continue it.

THE ART OF NURSING, BREEDING, AND ORDERING OF THE SILK-WORM.

All ye gentle dames attend my ſong,
To you the matter and the verſe belong;
Hence learn th' improvement of your lov'd attire,
Your's is the work, and you the bard inſpire.

VIDA's Poem on SILK-WORMS.

The ſilk-worm, we find, was firſt brought to Conſtantinople by two monks who were ſent by the Emperor Juſtinian to Perſia to find out the method how the ſilk trade was managed there, as he was highly diſguſted at his ſubjects buying it at ſo dear a rate; but on their return they informed the Emperor of the impoſſibility of preſerving the inſects alive; therefore, by the Emperor's deſire, they made a ſecond journey, and brought a quantity of their eggs in a roll of parchment, with directions how to breed and feed them when hatched from thence, and how to obtain ſilk from them.

From ſo ſmall a beginning all Europe, in ſome meaſure, has reaped advantage of the ſilk manufacture.

From

From hence to ſome whole tides of riches flow,
And hoarded gains to countleſs treaſure grow.
* * * * * * * *
Houſe them ſecure, and in your care be wiſe;
Slight is the labour, but not ſo the prize;
Short is the time before the ſilken ſpoil,
Shall in full glittering heaps reward thy toil.

This inſect is hatched from an egg, about the ſize of a grain of muſtard-ſeed, and of a liver colour; the worm is perfectly black, and when it firſt comes out, though its head is of a deeper ſable than any other part, in a few days it grows whitiſh, or of an aſh grey colour, and as the ſkin at that time appears dirty and ruffled, it caſts it off and aſſumes a new dreſs, it then grows bigger and ſomething whiter, inclining to green; when they once begin to gather ſtrength, they faſten themſelves on mulberry leaves, which muſt be the ſofteſt, and gathered in dry weather, and muſt be diſpoſed ſo as to ſecure them from wind or damps of any kind, for any impurity whatever will kill the ſilk-worm: As ſoon as this inſect is laid on the leaves it faſtens on them, and ſo paſſes from one to another, eating to the very laſt hour of its moulting; and from the inſtant it begins to eat, it has a thread, by which it faſtens itſelf as occaſion requires, and prevents the inconveniency that might attend a fall.

After

After a few days that varies in proportion to the heat, or complexion of the creation, and the nature of its proviſions, the worm declines eating, and ſleeps near two days, then falls into a ſort of convulſions, and grows almoſt red with thoſe violent agitations, it then caſts its ſecond ſkin, grows wrinkled and rough, and aſſumes a third dreſs, which is very beautiful to the eyes, and it being quite recovered of its ſickneſs takes to eating again.

Between the heart and the lungs lie the ventricle and the inteſtines, where the digeſtion is performed, and all thoſe veſſels are ſurrounded with a great variety of turnings and windings by a little long bag, containing a ſort of gum, of the colour of a marigold, with which this inſect ſpins its ſilk. Under its mouth are two holes, through which this gum diſtills in proper quantities, and they, like two diſtaffs, conſtantly furniſh the creature with materials for ſpinning her thread: This gum receives its form, and is extended in a double thread, which ſhe unites by glewing them one over another with her fore-feet.

This inſect after its ſpinning time, is tranſformed to an aurelia, or chryſalis, in ſhape of a ſmall plum, in which ſhape it lies ſhut up in hot countries, for fourteen or fifteen days; in more temperate, eighteen or twenty, without food or air: During this incloſure within a caſe of its own ſpinning, it caſts off two coats, both that of the worm, when it is changed into

to an aurelia, and that of the aurelia, when it becomes a moth; in its caſe, and juſt before it comes out with head, legs, wings, horns, &c. which paſſage is made by itſelf with a whitiſh water it caſts on the ſilk, which ſo ſoftens the caſe at the ſharp end, that the little creature is able to eat a hole through it as big as itſelf; this laſt changes into a moth, being the perfection of the ſilk-worm; the males and females immediately couple, and continue in that ſtate eight or ten hours; the male dies ſoon after, and the female ſhares the ſame fate when ſhe has laid her eggs; theſe eggs however are of ſo hard a nature, as to be kept for ten months in the year as a dead thing, and take life in the ſpring to renew their parents kind, of which Vida ſings.

Learn firſt their cloſe of life, 'tis finiſhed ſoon,
Nor e'er exceeds the third revolving moon;
Childleſs they die, this diſmal fate all find,
And ev'ry winter ſees th' extinguiſh'd kind;
Yet ſtill the name ſubſiſts, a brood ſucceeds,
Nor can death triumph o'er th' eternal ſeeds.
For when the ſilk-worm fails, a yearly race
Renew the kind, and takes the parents place.

Theſe eggs that appear yellow muſt be thrown away as uſeleſs; preſerve none but thoſe of a liver-colour, and in order to ſave your eggs, you muſt begin with a needle and

thread to couple the male and female bottoms, taking care to do this ſo gently on one ſide only as not to injure the chryſalis; (which may happen if you run the needle through the bottom) then hang them up out of the power of vermin, and when the aurelia is turned into a moth and eat its way out, take it by the wings, and ſet it on a ſhelf, that the male and female may couple together. The male has a leſſer body, broader horns, and flutters oftner and ſtronger with its wings than the female. During their copulation, provide a piece of lawn or linen, or fine paper, and put the coupled moths upon it; here the female will lay her eggs, which are of a pale yellow, but will turn in a few days of a liver colour, if good: She being dead, take them off the ſtuff carefully with the point of a knife; (as practiſed by ſome) but it is better to take the linen or paper and put them into an earthen pot, which muſt be kept in a temperate place in ſummer, in winter put them in a box amongſt woollens till the May following, according to the directions of Vida.

Leſt the younglings come before their time,
And fall by cold or famine, by thy crime;
Bring not the hidden ſeeds to ſight of day,
Whilſt leafleſs trees their naked arms diſplay,
Till deck'd with flowers the ſmiling meads are ſeen,
And budding mulberries are cloathed in green:

Thoſ

Theſe plants the ſwains obſerve, and as they grow,
The times diſtinguiſh, and the ſeaſon know;
When blooming leaves the ſpreading boughs adorn,
Then bloſſoming open to the ruddy morn,
Joyous they learn the hoary winter's paſt,
The frozen waters and the dreadful blaſt;
For corn or cattle, they no longer fear
The boiſt'rous danger of th' inclement year.
The changing ſeaſons of the moon remain
To be obſerv'd: Avoid the dang'rous wain,
Nor chuſe the time when ſhe new dips her horn,
And paler light her humid face adorn;
But when full orb'd, ſwol'n with her brother's blaze,
She mounts the ſkies, and dares to meet his rays;
Then bring them forth, then hatch the tender breed,
The waxing light adds vigour to the ſeed:
The moon propitious, and the favouring ſky,
With greater ſtrength the new-born worms ſupply;
Next how to hatch them, and by what deviſe;
The art is curious and the method nice:
Some to the warming ſun their eggs diſplay,
Till from their cells the younglings force their way.
Be thou adviſ'd; thy boſom be their neſt;
Wrapt cloſe beneath thy garments let them reſt.
Nor need thou bluſh beneath thy breaſts to hide,
If on their gloſſy web thou build'ſt thy pride;
Ere the third ſun the gloom begins to clear,
New dawning lives in wondrous forms appear.

In hatching the ſilk-worm take great care to be well provided with mulberry leaves, ſufficient to ſupport ſuch a number of worms as you intend to breed The ſilk-worms produced from an ounce of eggs are ſuppoſed to eat, in the whole time of feeding, from two to three hundred pounds weight of mulberry leaves, when the mulberry tree begins to bud, which is about the end of April or beginning of May.

Thoſe who do not chooſe to follow the above method, muſt take care to keep them continually warm, either in the ſun or upon a hearth where they may receive a moderate heat from the fire, for three days without looking at them, for fear the cold air may injure them; and if there be no appearance of any being hatched, continue them warm two or three days longer, and then without doubt you will find ſome hatched, which muſt not be ſeparated from the eggs that are not hatched, but put together with them into a deal box. This is to be underſtood of thoſe only that are hatched in lawn or linen bags, for ſuch as are hatched in boxes are to be ſeparated from the eggs that are not hatched by the following method: As faſt as the worms hatch take a feather or hair pencil, wet it a little, and juſt touch the worm, and it will ſtick to it, and by this method remove them to the boxes prepared for nurſing them in.

APPENDIX.

APPENDIX.

Of the means of taking caſts and impreſſions, from figures, buſts, medals, leaves, &c.

THE method of taking caſts of figures and buſts, as at preſent practiſed, is moſt generally by the uſe of plaſter of Paris; or, in other words, alabaſter calcined by a gentle heat. The advantage of uſing this ſubſtance preferably to others, conſiſts in this, that notwithſtanding a ſlight calcination reduces it to a pulverine ſtate, it becomes again a tenacious and cohering body, by being moiſtened with water; and afterwards ſuffered to dry; by which means either a concave or convex figure may be given by a proper mold or model to it when wet, and retained by the hardneſs it acquires when dry: and from theſe qualities,

it is fitted to the double uſe of making both caſts, and molds for forming thoſe caſts. The plaſter is to be had ready prepared of thoſe, who make it their buſineſs to ſell it, and the only care is to ſee that it is genuine.

The particular manner of making caſts depends on the form of the ſubject to be taken. Where there are no projecting parts, it is very ſimple and eaſy; as likewiſe where there are as ſuch form only a right or any greater angle with the principal ſurface of the body: but where parts project in leſſer angles, or form curves inclined towards the principal ſurface of the body, the work is more difficult. I ſhall therefore firſt explain thoſe particulars of the manner, which are general to all kinds; and then point out the extraordinary methods to be uſed where difficulties occur.

The firſt ſtep to be taken is, the forming the mold; which is, indeed, done by much the ſame means, as the caſt is afterwards made in it. In order to this, if the original or model be a baſs-relief, or any other piece of a flat form, having its ſurface firſt well greaſed, it muſt be placed on a proper table, or other ſuch ſupport; and ſurrounded by a frame, the ſides of which muſt be at ſuch a diſtance from it, as will allow a proper thickneſs for the ſides of the mold. A due quantity of the plaſter, that is, what will be ſufficient to cover and riſe to ſuch a thickneſs as may give ſufficient ſtrength to the mold, as alſo to fill the hollow be-

betwixt the frame and the model, muſt be moiſtened with water, till it be juſt of ſuch conſiſtence as will allow it to be poured upon the model; which ſhould be done as ſoon as poſſible: for it muſt not be delayed after the water is added to the plaſter, which would otherwiſe concrete or ſet, ſo as to become more troubleſome in the working, or unfit to be uſed. The whole muſt then be ſuffered to remain in this condition, till the plaſter has attained its hardneſs; and then the frame being taken away, the preparatory caſt or mold thus formed may be taken off from the ſubject intire.

Where the model or original ſubject is of a round or erect form, a different method muſt be purſued; and the mold muſt be divided into ſeveral pieces: or if the ſubject conſiſts of detached and projecting parts, it is frequently moſt expedient to caſt ſuch parts ſeparately; and afterwards to join them together.

Where the original ſubject or model forms a round, or ſpheroid, or any part of ſuch round, or ſpheroid, more than one half, the plaſter muſt be uſed without any frame to keep it round the model; and muſt be tempered with water, to ſuch a conſiſtence, that it may be wrought with the hand like very ſoft paſte; but though it muſt not be ſo fluid, as when prepared for flat-figured models, it muſt yet be as moiſt as if compatible with its cohering ſufficiently to hold together: and being thus pre-

prepared, it muſt be put upon the model, and compreſſed with the hand, or any flat inſtrument, that the parts of it may adapt themſelves, in the moſt perfect manner, to thoſe of the ſubject, as well as be compact with reſpect to themſelves. When the model is ſo covered to a convenient thickneſs, the whole muſt be left at reſt till the plaſter be ſet and firm, ſo as to bear dividing without falling to pieces, or being liable to be put out of its form by ſlight violence; and it muſt then be divided into pieces, in order to its being taken off from the model, by cutting it with a knife, or with a very thin blade; and being divided, muſt be cautiouſly taken off, and kept till dry: but it muſt be always carefully obſerved, before the ſeparation of the parts be made, to notch them croſs the joints, or lines of the diviſion, at proper diſtances, that they may with eaſe and certainty be properly conjoined again; which would be much more precarious and troubleſome without ſuch directive marks. The art of properly dividing the molds, in order to make them ſeparate from the model, conſtitutes the greateſt object of dexterity and ſkill in the art of caſting; and does not admit of rules for the moſt advantageous conduct of it in every caſe: but I ſhall endeavour to explain the principles on which it depends, in ſuch manner, that by a due application of them, all difficulties may at any time be ſurmounted, and an expertneſs even of manner acquired by a little

a little practice. With reſpect to the caſe in queſtion, where the ſubject is of a round or ſpheroidal form, it is beſt to divide the mold into three parts, which will then eaſily come off from the model; and the ſame hold good of a cylinder or any regular curve figure.

The model being thus formed and dry, and the parts put together, it muſt be firſt greaſed and placed in ſuch a poſition that the hollow may lie upwards, and then filled with plaſter commixt with water, in the ſame proportion and manner as was directed for the caſting the mold; and when the caſt is perfectly ſet, and dry, it muſt be taken out of the mold and repaired, where it is neceſſary; which finiſhes the whole operation.

This is all that is required with reſpect to ſubjects, where the ſurfaces have the regularity above mentioned; but where they form curves which interſect each other, the conduct of the operation muſt be varied with reſpect to the manner of taking the caſt of the mold from off the ſubject or model; and where there are long projecting parts, ſuch as legs or arms, they ſhould, as was obſerved before, be wrought in ſeparate caſts.

The method of dividing properly the molds cannot be reduced, as I intimated, to any particular rules; but muſt depend in ſome degree on the ſkill of the operator, who may eaſily judge from the original ſubjects, by the means here ſuggeſted, what parts will come off together,

gether, and what require to be ſeparated: the principle of the whole conſiſts only in this, that where *under-workings*, as they are called, occur, that is, where ever a ſtreight line drawn from the baſis or inſertion of any projection, would be cut or croſſed by any part of ſuch projection, ſuch part cannot be taken off without a diviſion; which muſt be made either in the place where the projection would croſs the ſtreight line; or, as that is frequently difficult, the whole projection muſt be ſeparated from the main body, and divided alſo length-ways into two parts; and where there are no projections from the principal ſurfaces, but the body is ſo formed as to render the ſurface a compoſition of ſuch curves, that a ſtreight line being drawn parallel to the ſurface of one part would be cut by the outline, in one or more places, of another part, a diviſion of the whole ſhould be made, ſo as to reduce the parts of it into regular curves, which muſt then be treated as ſuch.

Where detached parts of a long form, as legs, arms, ſpears, ſwords, &c. occur in any figure, they ſhould be caſt in ſeparate molds; and if ſuch parts are of a compound ſtructure, the ſame rules, as was before intimated, muſt be obſerved in the management of them, as are already directed for the principal part.

In larger maſſes, where there would otherwiſe be a great thickneſs of the plaſter, a corps or body may be put within the mold, in order

to

to produce a hollow in the caſt; which both ſaves the expence of the plaſter, and renders the caſt lighter.

This corps may be of wood, where the forming a hollow of a ſtreight figure, or ſuch as is conical with the baſis outward, will anſwer the end; but if the cavity require to be round, or of any curve figure, the corps cannot be then drawn while intire; and conſequently ſhould be of ſuch matter as will ſuffer itſelf to be taken out piece-meal. In this caſe, therefore, the corps is beſt formed of clay, which muſt be worked upon wires to give it tenacity, and ſuſpended in the hollow of the mold, by croſs-wires lying over the mouth; and when the plaſter is ſufficiently ſet to bear handling, the clay muſt be picked out by a proper inſtrument

Where it is deſired to render the plaſter harder, the water with which it is tempered ſhould be mixed with parchment ſize prepared as below directed, which will make it very firm and tenacious.

In the ſame manner, figures, buſts, &c. may be caſt of lead, or any other metal, in the molds of plaſter; only the expence of plaſter, and the tedioufneſs of its becoming ſufficiently dry, when in a very large maſs, to bear the heat of melted metal, render the uſe of clay, compounded with ſome other proper materials, preferable where large ſubjects are in queſtion. The clay, in this caſe, ſhould be

waſhed

waſhed over till it be perfectly free from gravel or ſtones, and then mixed with a third or more of fine ſand to prevent its cracking; or, inſtead of ſand, coal aſhes ſifted till they be perfectly fine is preferable. Whether plaſter, or clay, be uſed for the caſting in metal, it is extremely neceſſary to have the mold perfectly dry; otherwiſe, the moiſture, being rarified, will make an exploſion, that will blow the metal out of the mold, and endanger the operator, or at leaſt crack the mold in ſuch manner as to fruſtrate the operation. Where the parts of a mold are larger or project much, and conſequently require a greater tenacity of coheſion of the matter they are formed of to keep them together; flocks of cloth, prepared like thoſe deſigned for the paper hangings, or fine cotton pluckt or cut till it is very ſhort, ſhould be mixt with the aſhes or ſand before they be added to the clay to make the compoſition for the mold. The proportion ſhould be according to the degree of coheſion required; but a ſmall quantity will anſwer the end, if the other ingredients of the compoſition be good; and the parts of the mold properly linked together by means of the wires above directed.

There is a method of taking caſts in metals from ſmall animals, and the parts of vegetables, which though not much known or uſed in this country, may be nevertheleſs practiſed for ſome purpoſes with advantage; particularly for the decorating grottoes or rock work, where

where nature is imitated. The proper kinds of animals are lizards, ſnakes, frogs, birds, or inſects; the caſts of which being properly coloured will be exact repreſentations of the originals.

This is to be performed by the following method. A coffin or proper cheſt for forming the mold, being prepared of clay, or four pieces of boards fixed together, the animal or parts of vegetables, muſt be ſuſpended in it by a ſtring; and the leaves, tendrils, or other detached parts of the vegetables, or the legs, wings, &c. of the animals, properly ſeparated and adjuſted in their right poſition by a ſmall pair of pincers, and a due quantity of plaſter of Paris, and calcined talc, in equal quantities, with ſome alumen plumoſum, muſt then be tempered with water to the proper conſiſtence for caſting; and the ſubject from whence the caſt is to be taken, as alſo the ſides of the coffin moiſtened with ſpirit of wine.

The coffin or cheſt muſt be then filled with the tempered compoſition of the plaſter, and talc, putting, at the ſame time, a piece of ſtreight ſtick or wood to the principal part of the body of the ſubject, and pieces of thick wire to the extremities of the other parts, in order, that they may form, when drawn out after the matter of the mold is properly ſet and firm, a channel for pouring in the melted metal, and vents for the air, which otherwiſe by the rarefaction it would undergo from the

heat of the metal, would blow it out or burſt the mold. In a ſhort time the plaſter and talc will ſet and become hard; when the ſtick and wires may be drawn out, and the frame or coffin in which the mold was caſt, taken away; and the mold muſt then be put firſt into a moderate heat, and afterwards, when it is as dry as it can be rendered by that degree, removed into a greater; which may be gradually inincreaſed till the whole be red hot. The animal, or part of any vegetable, which was included in the mold, will then be burnt to a coal; and may be totally calcined to aſhes, by blowing for ſome time gently into the channel and paſſages made for pouring in the metal, and giving vent to the air; which will, at the ſame time that it incinirates the remainder of the animal or vegetable matter, blow out the aſhes. The mold muſt then be ſuffered to cool gently, and will be perfect; the deſtruction of the ſubſtance of the animal or vegetable, having produced a hollow of a figure correſpondent to it; but it may be nevertheleſs proper to ſhake the mold, and turn it upſide down, as alſo to blow with the bellows into each of the air vents, in order to free it wholly from any remainder of the aſhes; or, where there may be an opportunity of filling the hollow with quickſilver without expence, it will be found a very effectual method of clearing the cavity, as all duſt, aſhes or ſmall detached bodies, will neceſſarily riſe to the ſurface

ſurface of the quickſilver; and be poured out with it. The mold being thus prepared, it muſt be heated very hot when uſed, if the caſt be made with copper or braſs; but a leſs degree will ſerve for lead or tin; and the matter being poured in, the mold muſt be gently ſtruck; and then ſuffered to reſt till it be cold; at which time it muſt be carefully taken from the caſt; but without the leaſt force, for ſuch parts of the matter as appear to adhere more ſtrongly, muſt be ſoftned by ſoaking in water, till they be intirely looſened, that none of the more delicate parts of the caſt may be broken off or bent.

Where the alumen plumoſum, or talc, cannot be eaſily procured, the plaſter may be uſed alone; but it is apt to be calcined by the heat uſed in burning the animal or vegetable from whence the caſt is taken, and to become of too incohering and crumbly a texture: or for cheapneſs Sturbridge clay, or any other potters or other good clay, waſhed over till it be perfectly fine, and mixed with an equal part of ſand and ſome flocks cut ſmall, may be employed. Pounded pumice ſtone and plaſter of Paris, taken in equal quantities and mixed with waſhed clay in the ſame proportion, is ſaid to make excellent molds for this and parallel uſes.

Caſts of medals, or ſuch ſmall pieces, as are of a ſimilar form, may be made in plaſter, by the method directed for baſs relieves. Indeed

there is nothing more required than to form a mold by laying them on a proper board; and, having ſurrounded them by a rim made of a piece of a card or any other paſteboard, to fill the rim with ſoft tempered plaſter of Paris; which mold when dry, will ſerve for ſeveral caſts. It is nevertheleſs a better method to form the mold of melted ſulphur, which will produce a ſharper impreſſion in the caſt, and be more durable than thoſe made of plaſter.

The caſts of medals are likewiſe frequently made of ſulphur; which being melted, muſt be treated exactly in the ſame manner as the plaſter.

Caſts may be made, likewiſe, with iron with very little additional trouble, provided it be prepared in the following manner.

" Take any iron bar, or piece of a ſimilar " form; and, having heated it red hot, hold " it over a veſſel containing water; and touch " it very ſlightly with a roll of ſulphur; " which will immediately diſſolve it, and make " it fall in drops into the water under it. As " much iron as may be wanted being thus " diſſolved, pour the water then out of the " veſſel, and pick out the drops formed by " the melted iron from thoſe of the ſulphur, " which contain little or no iron, and will be " diſtinguiſhable from the other by their co- " lour and weight."

The iron will, by this means, be rendered ſo fuſible, or eaſy to be melted, that it will

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run with leſs heat than will melt lead, and may be employed for making caſts of medals, and many other ſuch purpoſes, with great covenience and advantage.

Impreſſions of medals, having the ſame effect as caſts, may be made alſo of iſinglaſs glue by the following means. Melt the iſinglaſs, beaten as when commonly uſed, in an earthen pipkin, with the addition of as much water as will cover it, ſtirring it gently till the whole be diſſolved. Then, with a bruſh of camel's hair, cover the medal; which ſhould be previouſly well cleanſed and warmed, and then laid horizontal on a board or table greaſed in the part around the medal. Let them reſt afterwards till the glue be properly hardened; and then, with a pin, raiſe the edge of it, and ſeparate it carefully from the medal; the caſt will be thus formed by the glue as hard as horn, and ſo light, that a thouſand will ſcarcely weigh an ounce. In order to render the relief of the medal more apparent, a ſmall quantity of carmine may be mixed with the melted iſinglaſs: or the medal may be previouſly coated with leaf gold by breathing on it, and then laying it on the leaf, which will by that means adhere to it; but the uſe of the leaf gold is apt to impair a little the ſharpneſs of the impreſſion.

There is likewiſe a method of making impreſſions of the ſame kind in lead; which is this. Lay the medal on a poſt, or other firm

body of wood, and cover it with a piece of very thin plate of lead; and lay over that another piece of thicker plate. Then place on them end-ways, a piece of wood turned of a round figure; which may be a foot or more in length, and of ſuch thickneſs, that its diameter may be ſomewhat greater than that of the medal. Strike then forcibly on the upper end of the wood with a mallet, or ſome ſuch inſtrument; and the undermoſt plate of lead will receive the impreſſion of the medal; to preſerve which, the concave of the reverſe may be filled up with reſin, mixed with an equal part of brick-duſt, and melted. The impreſſion ſhould be made with one ſtroke, which will produce a ſufficient effect, if given with due ſtrength, and in a perpendicular direction. Impreſſions may be even taken from ſealing wax or ſulphur in this manner, if the pieces be no way concave or bending on their under ſide.

Impreſſions of medals may be likewiſe taken in putty; but it ſhould be the true kind, made of earth of tin and drying oil. Theſe may be formed in the molds previouſly taken in plaſter or ſulphur, or molds may be made in its own ſubſtance, in the manner directed for thoſe of the plaſter. Theſe impreſſions will be very ſharp and hard; but the greateſt diſadvantage that attends them, is their drying very ſlowly, and being liable in the mean time to be damaged,

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Impreſſions of prints, or other engravings, may be taken from copper-plates by cleaning them thoroughly, and pouring plaſter upon them; but the effect, in this way, is not ſtrong enough for the eye; and therefore the following method is preferable, where ſuch impreſſions on plaſter are deſired.

Take vermilion, or any other coloured pigmen, finely powdered, and rub it over the plate. Then paſs a folded piece of paper, or the flat part of the hand, over the plate to take off the colour from the lights or parts where there is no engraving. The proceeding muſt then be the ſame, as where no colour is uſed. This laſt method is alſo applicable to the making impreſſions of copper-plates on paper with dry colours; for the plate being prepared as here directed, and laid on the paper properly moiſtened, and either paſſed under the rolling-preſs, or any other way ſtrongly forced down on the paper, an impreſſion of the engraving will be obtained.

Impreſſions may be likewiſe taken from copper-plates, either on plaſter or paper, by means of the ſmoke of a candle or lamp; if, inſtead of rubbing them with any colour, the plate be held over the candle or lamp, till the whole ſurface become black, and then wiped off by the flat of the hand, or paper.

Theſe methods are not, however, of very great uſe in the caſe of copper-plates; except where impreſſions may be deſired on occaſions

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where printing ink cannot be procured; but as they may be applied likewiſe to the taking impreſſions from ſnuff-boxes, or other engraved ſubjects, by which means deſigns may be inſtantly borrowed by artiſts or curious perſons, and preſerved for any uſe, they may in ſuch inſtances be very uſeful.

The expedient of taking impreſſions by the ſmoke of a candle or lamp may be employed, alſo for botanical purpoſes in the caſe of leaves; as a perfect and durable repreſentation of not only the general figure, but the contexture and diſpoſition of the larger fibres, may be extemporaneouſly obtained at any time. The ſame may be, nevertheleſs, done, in a more perfect manner, by the uſe of linſeed oil, either alone, or mixed with a ſmall proportion of colour, where the oil can be conveniently procured; but the other method is valuable on account of its being practicable at almoſt all ſeaſons, and in all places, within the time that the leaves will keep freſh and plump. In taking theſe impreſſions, it is proper to bruiſe the leaves, ſo as to take off the projections of the large ribs, which might prevent the other parts from plying to the paper.

Leaves, or alſo the petals, or flower leaves of plants, may themſelves be preſerved on paper, with their original appearance, for a conſiderable length of time, by the following means. Take a piece of paper, and rub it over with the iſinglaſs glue treated as above

directed

directed for taking impreſſions from medals; and then lay the leaves in a proper poſition on the paper. The glue laid on the paper being ſet, bruſh over the leaves with more of the ſame, and that being dry likewiſe, the operation will be finiſhed, and the leaves ſo ſecured from the air and moiſture, that they will retain their figure and colour much longer than by any other treatment.

Butter flies, or other ſmall animals of a flat figure, may alſo be preſerved in the ſame manner.

Of Japanning in general.

BY japanning is to be here underſtood the art of covering bodies by grounds of opake colours in varniſh; which may be either afterwards decorated by paintings or gilding, or left in a plain ſtate. This is not at preſent practiſed ſo frequently on chairs, tables, and other furniture of houſes, except tea-waiters, as formerly: but the introduction of it for ornamenting coaches, ſnuff-boxes, and ſkreens, in which there is a rivalſhip betwixt ourſelves and the French, renders the cultivation and propagation of this art of great importance to commerce. I ſhall therefore be more explicit in ſhewing the methods both now and formerly

ly in uſe; with the application of each to the ſeveral purpoſes to which they are beſt adapted and point out at the ſame time ſeveral very material improvements, that are at preſent enjoyed only by particular perſons; or not at all hitherto brought into practice.

The ſubſtances which admit of being japanned are almoſt every kind that are dry and rigid, or not too flexible; as wood, metals, leather, and paper prepared.

Wood and metals do not require any other preparation, but to have their ſurfaces perfectly even and clean; but leather ſhould be ſecurely ſtrained either on frames, or boards, as its bending or forming folds would otherwiſe crack and force off the coats of varniſh; and paper ſhould be treated in the ſame manner, and have a previous ſtrong coat of ſome kind of ſize; but it is rarely made the ſubject of japanning till it is converted into *papier machè*, or wrought by other means, into ſuch form that its original ſtate, particularly with reſpect to flexibility, is loſt.

One principal variation in the manner of japanning is, the uſing or omitting any priming or under-coat on the work to be japanned. In the older practice, ſuch priming was always uſed; and is at preſent retained in the French manner of japanning coaches and ſnuff-boxes of the *papier machè*; but in the Birmingham manufacture here, it has been always rejected. The advantage of uſing ſuch priming or undercoat

coat is, that it makes a ſaving in the quantity of varniſh uſed, becauſe the matter of which the priming is compoſed fills up the inequalities of the body to be varniſhed, and makes it eaſy, by means of rubbing and water-poliſhing, to gain an even ſurface for the varniſh; and this was therefore ſuch a convenience in the caſe of wood, as the giving a hardneſs and firmneſs to the ground was alſo in the caſe of leather, that it became an eſtabliſhed method; and is therefore retained even in the inſtance of the *papier machè*, by the French who applied the received method of japanning to that kind of work on its introduction. There is nevertheleſs this inconvenience always attending the uſe of an under coat of ſize, that the japan coats of varniſh and colour will be conſtantly liable to be cracked and peeled off, by any violence, and will not endure near ſo long as the bodies japanned in the ſame manner, but without any ſuch priming; as may be eaſily obſerved in comparing the wear of the Paris and Birmingham ſnuff-boxes; which latter, when good of their kind, never peel or crack, or ſuffer any damage, unleſs by great violence, and ſuch a continued rubbing, as waſtes away the ſubſtance of the varniſh; while the japan coats of the Pariſian crack and fly off in flakes whenever any knock or fall, particularly near the edges, expoſes them to be injured. But the Birmingham manufacturers, who originally practiſed the japanning only on metals, to which

which the reaſon above given for the uſe of priming did not extend, and who took up this art of themſelves as an invention, of courſe omitted at firſt the uſe of any ſuch under-coat; and not finding it more neceſſary in the inſtance of *papier machè*, than on metals, continue ſtill to reject it. On which account the boxes of their manufacture are, with regard to the wear, greatly better than the French.

The laying on the colours in gum water, inſtead of varniſh, is alſo another variation from the method of japanning formerly practiſed; but the much greater ſtrength of the work, where they are laid on in varniſh or oil, has occaſioned this way to be exploded with the greateſt reaſon in all regular manufactures: however, they who practiſe japanning on cabinets, or other ſuch pieces, as are not expoſed to much wear and violence, for their amuſement only, and conſequently may not find it worth their while to encumber themſelves with the preparations neceſſary for the other methods, may paint with water colours on an under-coat laid on the wood, or other ſubſtance of which the piece to be japanned is formed; and then finiſh with the proper coats of varniſh according to the methods below taught; and if the colours are tempered with the ſtrongeſt iſinglaſs ſize and honey inſtead of gum water, and laid on very flat and even, the work will not be much inferior in appear-

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ance to that done by the other method; and will laſt as long as the old japan.

It is practiſed likewiſe in imitation of what is ſometimes done in the Indian work, to paint with water colours on grounds of gold, in which caſe the iſinglaſs ſize, with ſugar-candy or honey, as above directed, is the beſt vehicle.

OF JAPAN GROUNDS.

The proper japan grounds are either ſuch as are formed by the varniſh and colour, where the whole is to remain of one ſimple colour; or by the varniſh either coloured, or without colour, on which ſome painting or other decoration is afterwards to be laid. It is neceſſary, however, before I proceed to ſpeak of the particular grounds, to ſhew the manner of laying on the priming or undercoat, where any ſuch is uſed.

This priming is of the ſame nature with that called clear coating (or vulgarly clear coaling) practiſed erroneouſly by the houſe-painters; and conſiſts only in laying on and drying in the moſt even manner, a compoſition of ſize and whiting. The common ſize has been generally uſed for this purpoſe, but where the work is of a nicer kind, it is better to employ the glover's or the parchment ſize; and if a third of iſinglaſs be added, it will be ſtill better; and if not laid on too thick, much leſs liable to peel and crack. The work ſhould be prepared for this priming, by being well ſmoothed with

the fiſh-ſkin, or glaſs ſhaver; and, being made thoroughly clean, ſhould be bruſhed over once or twice with hot ſize, diluted with two thirds of water, if it be of the common ſtrength. The priming ſhould then be laid on with a bruſh as even as poſſible; and ſhould be formed of a ſize, whoſe conſiſtence is betwixt the common kind and glue, mixt with as much whiting as will give it a ſufficient body of colour to hide the ſurface of whatever it is laid upon, but not more.

If the ſurface be very even, on which the priming is uſed, two coats of it, laid on in this manner, will be ſufficient: but if, on trial with a fine rag wet, it will not receive a proper water poliſh, on account of any inequalities not ſufficiently filled up and covered, two or more coats muſt be given it: and whether a greater or leſs number be uſed, the work ſhould be ſmoothed, after the laſt coat but one is dry, by rubbing it with the Dutch ruſhes. When the laſt coat is dry, the water poliſh ſhould be given, by paſſing over every part of it with a fine rag gently moiſtened, till the whole appear perfectly plain and even The priming will then be completed, and the work ready to receive the painting, or coloured varniſh: the reſt of the proceedings in this caſe muſt be the ſame as where no priming is uſed.

OF COMMON GROUNDS OF VARNISH, WHICH ARE TO BE PAINTED UPON.

Where wood or leather is to be japanned, and no priming is uſed, the beſt preparation is to lay two or three coats of coarſe varniſh, compoſed in the following manner:

"Take of rectified ſpirit of wine one pint, "and of coarſe ſeed-lac and reſin each two "ounces. Diſſolve the ſeed lac and reſin in "the ſpirit: and then ſtrain off the varniſh."

This varniſh, as well as others formed of ſpirit of wine, muſt be laid on in a warm place; and, if it can be conveniently managed, the piece of work to be varniſhed ſhould be made warm likewiſe: and for the ſame reaſon all dampneſs ſhould be avoided; for either cold or moiſture chill this kind of varniſh; and prevent its taking proper hold of the ſubſtance on which it is laid.

When the work is ſo prepared, or by the priming with the compoſition of ſize and whiting above deſcribed, the proper japan ground muſt be laid on: which is much the beſt formed of ſhell-lac varniſh, and the colour deſired; if white be not in queſtion, which demands a peculiar treatment, as I ſhall below explain; or great brightneſs be not required, when alſo other means muſt be perſued.

The colours uſed with the ſhell-lac varniſh may be, any pigments whatever which give the teint of the ground deſired; and they may

be mixt together to form browns or any compound colours: but with reſpect to ſuch as require peculiar methods for the producing them of the firſt degree of brightneſs, I ſhall particularize them below.

The colours for grounds may otherwiſe be mixed with the white varniſhes formed in oil of turpentine: but theſe varniſhes have no advantages over the ſhell-lac but in their whiteneſs, that preſerves the brightneſs of the colours; and they are at the ſame time greatly inferior in hardneſs to it.

As metals never require to be under-coated with whiting, they may be treated in the ſame manner as wood or leather when the undercoat is omitted, except in the inſtances particularly ſpoken of below.

OF WHITE JAPAN GROUNDS.

The forming a ground perfectly white, and of the firſt degree of hardneſs, remains hitherto a deſideratum, or matter ſought for, in the art of japanning. As there are no ſubſtances which form a very hard varniſh, but what have too much colour not to deprave the whiteneſs, when laid on of a due thickneſs over the work.

The neareſt approach, however, to a perfect white varniſh, already known, is made by the following compoſition.

"Take flake white, or white lead, waſhed "over and ground up with a ſixth of its "weight

" weight of ſtarch, and then dried; and tem-
" per it properly for ſpreading, with maſtic
" varniſh, or compound them with the gum-
" animi." Lay theſe on the body to be ja-panned, prepared either with or without the undercoat of whiting, in the manner as above ordered: and then varniſh over it with five or ſix coats of the following varniſh.

" Provide any quantity of the beſt feed-
" lac, and pick out of it all the cleareſt and
" whiteſt grains; reſerving the more coloured
" and fouler parts for the coarſer varniſhes,
" ſuch as that above mentioned for priming or
" preparing wood or leather. Take of this
" pickt ſeed-lac two ounces: and of gum-
" animi three ounces; and diſſolve them, be-
" ing previouſly reduced to a groſs powder,
" in about a quart of ſpirit of wine; and ſtrain
" off the clear varniſh."

The ſeed-lac will yet give a ſlight tinge to this compoſition; but cannot be omitted, where the varniſh is wanted to be hard: though, where a ſofter will anſwer the end, the proportion may be diminiſhed; and a little crude turpentine added to the gum-animi to take off the brittleneſs.

A very good varniſh, free intirely from all brittleneſs, may be formed by diſſolving as much gum-animi, as the oil will take, in old nut or poppy oil; which muſt be made to boil gently, when the gum is put into it. The ground of white colour itſelf may be laid on

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in this varniſh; and then a coat or two of it may be put over the ground: but it muſt be well diluted with oil of turpentine when it is uſed. This, though free from brittleneſs, is, nevertheleſs, liable to ſuffer by being indented or bruiſed by any ſlight ſtrokes; and it will not well bear any poliſh, but may be brought to a very ſmooth ſurface without, if it be judiciouſly managed in the laying it on. It is likewiſe ſomewhat tedious in drying, and will require ſome time where ſeveral coats are laid on; as the laſt ought not to contain much oil of turpentine.

OF BLUE JAPAN GROUNDS.

Blue japan grounds may be formed of bright Pruſſian blue; or of verditer glazed over by Pruſſian blue; or of ſmalt. The colour may be beſt mixed with ſhell-lac varniſh, and brought to a poliſhing ſtate by five or ſix coats of varniſh of ſeed-lac; but the varniſh, nevertheleſs, will ſomewhat injure the colour, by giving to a true blue, a caſt of green; and fouling in ſome degree a warm blue, by the yellow it contains. Where, therefore, a bright blue is required, and a leſs degree of hardneſs can be diſpenſed with, the method before directed, in the caſe of white grounds, muſt be purſued.

OF RED JAPAN GROUNDS.

For a ſcarlet japan ground, vermilion may be uſed: but the vermilion has a glaring effect, that renders it much leſs beautiful than the crimſon produced by glazing it over with carmine or fine lake; or even with roſe pink, which has a very good effect uſed for this purpoſe. For a very bright crimſon, nevertheleſs, inſtead of glazing with carmine, the Indian lake ſhould be uſed, diſſolved in the ſpirit of which the varniſh is compounded (which it readily admits of when good): and, in this caſe, inſtead of glazing with the ſhell-lac varniſh, the upper or poliſhing coats need only be uſed; as they will equally receive and convey the tinge of the Indian lake, which may be actually diſſolved by ſpirit of wine: and this will be found a much cheaper method than the uſing carmine. If, nevertheleſs, the higheſt degree of brightneſs be required, the white varniſhes muſt be uſed.

OF YELLOW JAPAN GROUNDS.

For bright yellow grounds, the King's yellow, or the turpeth mineral, ſhould be employed, either alone or mixed with fine Dutch pink: and the effect may be ſtill more heightened by diſſolving powdered turmeric root in the ſpirit of wine of which the upper or poliſhing coat is made; which ſpirit of wine muſt be

be ſtrained from off the dregs, before the ſeed lac be added to it to form the varniſh.

The ſeed-lac varniſh is not equally injurious here, and with greens, as in the caſe of other colours; becauſe, being only tinged with a reddiſh yellow, it is little more than an addition to the force of the colours.

Yellow grounds may be likewiſe formed of the Dutch pink only; which, when good, will not be wanting in brightneſs, though extremely cheap.

OF GREEN JAPAN GROUNDS.

Green grounds may be produced by mixing the King's yellow and bright Pruſſian blue; or rather, the turpeth mineral and Pruſſian blue: and a cheap, but fouler kind, by verdigriſe with a little of the above-mentioned yellows, or Dutch pink. But where a very bright green is wanted, the chryſtals of verdigriſe, (call'd *diſtilled verdigriſe*) ſhould be employed; and to heighten the effect, they ſhould be laid on a ground of leaf gold, which renders the colour extremely brilliant and pleaſing.

They may any of them be uſed ſucceſsfully with good ſeed lac varniſh, for the reaſon before given: but will be ſtill brighter with the white varniſh.

OF ORANGE COLOURED JAPAN GROUNDS.

Orange coloured japan grounds may be formed, by mixing vermilion, or red lead, with King's yellow, or Dutch pink.

OF PURPLE JAPAN GROUNDS.

Purple japan grounds may be produced by the mixture of lake, and Pruſſian blue: or a fouler kind, by vermilion and Pruſſian blue. They may be treated as the reſt, with reſpect to the varniſh.

OF BLACK JAPAN GROUNDS, TO BE PRODUCED WITHOUT HEAT.

Black grounds may be formed by either ivory-black, or lamp-black: but the former is preferable, where it is perfectly good.

Theſe may be always laid on with the ſhell-lac varniſh: and have their upper or poliſhing coats of common ſeed lac varniſh; as the tinge or foulneſs of the varniſh can be here no injury.

OF COMMON BLACK JAPAN GROUNDS ON IRON OR COPPER, PRODUCED BY MEANS OF HEAT.

For forming the common black japan grounds by means of heat, the piece of work to be japanned muſt be painted over with drying oil: and when it is of a moderate dryneſs, muſt

muſt be put into a ſtove of ſuch degree of heat, as will change the oil black, without burning it, ſo as to deſtroy or weaken its tenacity. The ſtove ſhould not be too hot when the work is put into it, nor the heat increaſed too faſt; either of which errors would make it bliſter: but the ſlower the heat is augmented, and the longer it is continued, provided it be reſtrained within the due degree, the harder will be the coat of japan. This kind of varniſh requires no poliſh, having received, when properly managed, a ſufficient one from the heat.

OF THE FINE TORTOISE SHELL JAPAN GROUND, PRODUCED BY MEANS OF HEAT.

The beſt kind of tortoiſe ſhell ground produced by heat is not leſs valuable for its great hardneſs, and enduring to be made hotter than boiling water without damage, than for its beautiful appearance. It is to be made by means of a varniſh prepared in the following manner.

"Take of good linſeed oil one gallon, and "of umbre half a pound. Boil them toge- "ther till the oil become very brown and "thick: ſtrain it then through a coarſe cloth; "and ſet it again to boil; in which ſtate it "muſt be continued till it acquire a pitchy "conſiſtence, when it will be fit for uſe."

Having prepared thus the varniſh, clean well the iron or copper-plate, or other piece which

which is to be japanned; and then lay vermilion tempered with ſhell-lac varniſh, or with drying oil diluted with oil of turpentine very thinly, on the places intended to imitate the more tranſparent parts of the tortoiſe ſhell. When the vermilion is dry, bruſh over the whole with the black varniſh tempered to a due conſiſtence with oil of turpentine; and when it is ſet and firm, put the work into a ſtove, where it may undergo a very ſtrong heat, and muſt be continued a conſiderable time, if even three weeks or a month, it will be the better.

This ground may be decorated with painting and gilding, in the ſame manner as any other varniſhed ſurface, which had beſt be done after the ground has been duly hardened by the hot ſtove: but it is as well to give a ſecond annealing with a more gentle heat after it is finiſhed.

OF PAINTING JAPAN WORK.

JAPAN work ought properly to be painted with colours in varniſh; though, in order for the greater diſpatch, and, in ſome very nice works in ſmall, for the freer uſe of the pencil, the colours are ſometimes tempered in oil: which ſhould previouſly have a fourth part of its weight of gum-animi diſſolved in it; or in default of that, of the gums ſanderac or maſtic. When the oil is thus uſed, it ſhould be well deluted with ſpirit of turpentine, that the colours

lours may be laid more evenly and thin: by which means, fewer of the poliſhing or upper coats of varniſh become neceſſary.

In ſome inſtances, water colours, are laid on grounds of gold, in the manner of other paintings; and are beſt, when ſo uſed, in their proper appearance without any varniſh over them; and they are alſo ſometimes ſo managed as to have the effect of emboſſed work. The colours employed in this way, for painting, are beſt prepared by means of iſinglaſs ſize corrected with honey, or ſugar-candy. The body of which the emboſſed work is raiſed, need not, however, be tinged with the exterior colour; but may be beſt formed of very ſtrong gum water, thickened to a proper conſiſtence, by bole-armoniac and whiting in equal parts: which being laid on in the proper figure, and repaired when dry, may be then painted with the proper colours tempered in the iſinglaſs ſize, or in the general manner with ſhell-lac varniſh.

OF STAINING WOOD.

OF STAINING WOOD YELLOW.

TAKE any white wood; and bruſh it over ſeveral times with the tincture of turmeric root, made by putting an ounce of the turmeric ground to powder to a pint of ſpirit; and, after they have ſtood ſome days, ſtraining

ing off the tincture. If the yellow colour be deſired to have a redder caſt, a little dragon's blood muſt be added, in the proportion that will produce the teint required.

A cheaper, but leaſt ſtrong and bright yellow, may be given to wood by rubbing it over ſeveral times with the tincture of the French berries. After the wood is again dry, it ſhould be bruſhed over with a weak alum water uſed cold.

Leſſer pieces of wood, inſtead of bruſhed over with them, may be ſoaked in the decoctions or tinctures.

Wood may be alſo ſtained yellow by means of aqua fortis; which will ſometimes produce a very beautiful yellow colour, but at other times a browner. The wood ſhould be warm when the aqua fortis is laid on, and be held to the fire immediately afterwards; and care muſt be taken, that either the aqua fortis be not too ſtrong, or that it be ſparingly uſed; otherwiſe a brown, ſometimes even blackiſh, may be the reſult.

In order to render any of theſe ſtains more beautiful and durable, the wood ſhould be ruſhed after it is coloured; and then varniſhed by the ſeed-lac varniſh; or, when deſired to be very ſtrong, and to take a high poliſh, with three or four coats of ſhell-lac varniſh, and as many of that of ſeed-lac,

OF STAINING WOOD RED.

For a bright red ſtain for wood, make a ſtrong infuſion of Brazil in ſtale urine, or water impregnated with pearl aſhes in the proportion of an ounce to a gallon; to a gallon of either of which, the proportion of Brazil wood muſt be a pound; which being put to them, they muſt ſtand together two or three days, often ſtirring the mixture. With this infuſion ſtrained, and made boiling hot, bruſh over the wood to be ſtained, till it appear ſtrongly coloured; then, while yet wet, bruſh it over with alum water made in the proportion of two ounces of alum to a quart of water.

For a leſs bright red, diſſolve an ounce of dragon's blood in a pint of ſpirit of wine; and bruſh over the wood with the tincture, till the ſtain appears to be as ſtrong as is deſired.

For a pink or roſe red, add to a gallon of the above infuſion of Brazil wood, two additional ounces of the pearl aſhes, and uſe it as was before directed; but it is neceſſary in this caſe, to bruſh the wood over often with the alum water. By increaſing the proportion of pearl aſhes, the red may be rendered yet paler: but it is proper, when more than this quantity is added, to make, the alum water ſtronger.

Theſe reds, when it is neceſſary, may be varniſhed as the yellows.

OF STAINING WOOD BLUE.

Wood may be ſtained blue by means either of copper, or indico; but the firſt will afford a brighter colour, and is more generally practicable than the latter, becauſe the indico can be uſed only in that ſtate to which it is brought by the manner of preparation uſed by the dyers; of whom indeed it muſt be had, as it cannot be properly ſo prepared but in large quantities, and with a particular apparatus. The method of ſtaining blue with the copper is therefore as follows.

"Take a ſolution of copper, and bruſh it "while hot ſeveral times over the wood. "Then make a ſolution of pearl aſhes, in the "proportion of two ounces to a pint of wa- "ter; and bruſh it hot over the wood, ſtain- "ed with the ſolution of copper, till it be of "a perfectly blue colour."

Wood ſtained green as above by verdigriſe, may likewiſe be made blue, by uſing the ſolution of the pearl aſhes in the ſame manner.

When indico is uſed for ſtaining wood blue, it muſt be managed thus.

"Take indico prepared with ſoap-lees as "when uſed by the dyers; and bruſh the "wood with it boiling hot. Prepare then a "ſolution of white tartar, or cream of tartar, "which is to be made by boiling three ounces "of the tartar, or cream, in a quart of wa- "ter; and with this ſolution, uſed copiouſly,

" bruſh over the wood before the moiſture of " the tincture of indico be quite dried out of " it."

Theſe blues may be ruſhed and varniſhed as the reds where there is occaſion.

OF STAINING WOOD OF MAHOGONY.

Mahogony colour is the moſt uſeful of any ſtain for wood (eſpecially ſince the fineering with different colours is out of faſhion) as it is much practiſed at preſent for chairs and other furniture made in imitation of mahogony; which, when well managed, may be brought to have a very near reſemblance.

This ſtain may be of different hues, as the natural wood varies greatly, being of all the intermediate teints betwixt the red brown, and purple brown, according to the age, or ſometimes the original nature of different pieces.

For the light red brown, uſe a decoction of madder, or fuſtic wood, ground in water; the proportion may be half a pound of madder, and a quarter of a pound of fuſtic, to a gallon; or in default of fuſtic an ounce of the yellow berries may be uſed. This muſt be bruſhed over the wood to be ſtained, while boiling hot, till the due colour be obtained; and, if the wood be kindly grained, it will have greatly the appearance of new mahogony.

The ſame effect nearly may be produced by the tincture of dragon's blood, and turmeric root,

root, in ſpirit of wine: by increaſing or diminiſhing the proportion of each of which ingredients, the brown ſtain may be varied to a more red or yellow caſt at pleaſure. This ſucceeds better upon wood which has already ſome tinge of brown, than upon whiter.

For the dark mahogony take the infuſion of madder made as above, except the exchanging the fuſtic for two ounces of logwood; and when the wood to be ſtained has been ſeveral times bruſhed over, and is again dry, it muſt be ſlightly bruſhed over with water in which pearl aſhes have been diſſolved, in the proportion of about a quarter of an ounce to a quart.

Any ſtains of the intermediate colours may be made by mixing theſe ingredients, or varying the proportion of them.

Where theſe ſtains are uſed for better kind of work, the wood ſhould be afterwards varniſhed with three or four coats of ſeed-lac varniſh; but for coarſe work, the varniſh of reſin and ſeed-lac may be employed, or they may be only well rubbed over with drying oil.

OF STAINING WOOD GREEN.

Diſſolve verdigriſe in vinegar, or chryſtals of verdigriſe in water; and with the hot ſolution, bruſh over the wood till it be duly ſtained.

This may be ruſhed and varniſhed as the above.

OF STAINING WOOD PURPLE.

Bruſh the wood to be ſtained ſeveral times with a ſtrong decoction of logwood and Braſil, made in the proportion of one pound of the logwood, and a quarter of a pound of the Braſil, to a gallon of water; and boiled for an hour or more. When the wood has been bruſhed over till there be a ſufficient body of colour, let it dry; and then be ſlightly paſſed over by a ſolution of one dram of pearl aſhes in a quart of water. This ſolution muſt be carefully uſed, as it will gradually change the colour from a brown red, which it will be originally found to be, to a dark blue purple; and therefore its effect muſt be reſtrained to the due point for producing the colour deſired. This may be varniſhed as the reſt.

OF STAINING WOOD BLACK.

Bruſh the wood ſeveral times with the hot decoction of logwood made as above; but without the Braſil: then, having prepared an infuſion of galls, by putting a quarter of a pound of powdered galls to two quarts of water, and ſetting them in the ſun-ſhine, or any other gentle heat, for three or four days, bruſh the wood three or four times over with it: and then paſs over it again, while yet wet, with a ſolution of green vitriol in water, in proportion of two ounces to a quart.

The above is the cheapeſt method; but a very fine black may be produced, by bruſhing the

the wood ſeveral times over with a ſolution of copper in aqua fortis; and afterwards with the decoction of logwood, which muſt be repeated till the colour be of ſufficient force; and the greenneſs, produced by the ſolution of the copper, wholly overcome.

Theſe blacks may be varniſhed as the other colours.

Where the ſtains are deſired to be very ſtrong, as in the caſe of wood intended to be uſed for fineering, it is in general neceſſary, they ſhould be ſoaked, and not bruſhed; to render which the more practicable the wood may be previouſly ſlit, or ſawed, into pieces of a proper thickneſs for inlaying.

It is to be underſtood alſo, that when the wood is above ordered to be bruſhed ſeveral times over with the tinging ſubſtances, it ſhould be ſuffered to dry betwixt each time.

Of ſtaining ivory, bone, or horn.

OF STAINING IVORY, BONE, OR HORN.

BOIL them firſt in a ſolution of alum, in the proportion of one pound to two quarts of water; and then prepare a tincture of the French berries, by boiling half a pound of the berries, pounded, in a gallon of water with a quarter of a pound of pearl aſhes. After this

OF STAINING WOOD PURPLE.

Bruſh the wood to be ſtained ſeveral times with a ſtrong decoction of logwood and Braſil, made in the proportion of one pound of the logwood, and a quarter of a pound of the Braſil, to a gallon of water; and boiled for an hour or more. When the wood has been bruſhed over till there be a ſufficient body of colour, let it dry; and then be ſlightly paſſed over by a ſolution of one dram of pearl aſhes in a quart of water. This ſolution muſt be carefully uſed, as it will gradually change the colour from a brown red, which it will be originally found to be, to a dark blue purple; and therefore its effect muſt be reſtrained to the due point for producing the colour deſired.

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It is to be underſtood alſo, that when the wood is above ordered to be bruſhed ſeveral times over with the tinging ſubſtances, it ſhould be ſuffered to dry betwixt each time.

Of ſtaining ivory, bone, or horn.

OF STAINING IVORY, BONE, OR HORN.

BOIL them firſt in a ſolution of alum, in the proportion of one pound to two quarts of water; and then prepare a tincture of the French berries, by boiling half a pound of the berries, pounded, in a gallon of water with a quarter of a pound of pearl aſhes. After this

this tincture has boiled about an hour, put the ivory, &c. previouſly boiled in the alum water, into it; and let them remain there half an hour.

If turmeric root be uſed inſtead of the French berries, a brighter yellow may be obtained; but the ivory, &c. muſt in that caſe be again dipt in alum water after it is taken out of the tincture; otherwiſe, an orange colour, not a yellow, will be produced from the effect of the pearl aſhes on the turmeric.

OF STAINING IVORY, BONE, AND HORN GREEN.

They muſt be boiled in a ſolution of verdigriſe in vinegar; or of copper in aqua fortis, (a veſſel of glaſs or earthen ware being employed for this purpoſe,) till they be of the colour deſired.

OF STAINING IVORY, BONE, AND HORN RED.

Take ſtrong lime water, prepared as for other purpoſes; and the raſpings of Braſil wood, in the proportion of half a pound to a gallon. Let them boil for an hour; and then put in the ivory, &c. prepared by boiling in alum water in the manner above directed for the yellow; and continue it there till it be ſufficiently coloured. If it be too crimſon, or verge toward the purple, it may be rendered more ſcarlet, by dipping again in the alum water.

OF STAINING IVORY, BONE, AND HORN BLUE.

Stain the ivory, &c. firſt green, according to the manner above directed; and then dip it in a ſolution of pearl aſhes made ſtrong and boiling hot; but it muſt not be continued longer, nor dipt oftner than is neceſſary to convert the green to blue.

The ivory, &c. may otherwiſe be boiled in the tincture of indico prepared as by the dyers; and afterwards in the ſolution of tartar made as is directed for the ſtaining wood.

OF STAINING IVORY, BONE, AND HORN PURPLE.

Treat them in the ſame manner as was directed for red, except that logwood muſt be ſubſtituted in the place of Braſil wood; and the uſe of the alum water muſt be omitted wholly.

If a redder purple be wanted, a mixture of the logwood and Braſil muſt be employed, inſtead of the logwood alone. The proportion may be equal parts; or any leſs proportion of the Braſil, according to the colour deſired.

OF STAINING HORN TO IMITATE TORTOISE SHELL.

The horn to be ſtained muſt be firſt preſſed into proper plates, or ſcales, or other flat form. The following mixture muſt then be prepared.

" Take

"Take of quicklime two parts, and of li-
"tharge one; and temper them to the con-
"ſiſtence of a ſoft paſte with ſoap lye."

Put this paſte over all the parts of the horn, except ſuch as are proper to be left tranſparent, in order to the greater reſemblance of the tortoiſe ſhell. The horn muſt then remain thus covered with the paſte till it be thoroughly dry: when the paſte being bruſhed off, the horn will be found partly opake, and partly tranſparent, in the manner of tortoiſe ſhell; and when put over a foil, of the kind of latten called aſſidue, will be ſcarcely diſtinguiſhable from it. It requires ſome degree of fancy and judgment, to diſpoſe of the paſte in ſuch a manner, as to form a variety of tranſparent parts of different magnitude and figure, to look like the effect of nature; and it will be an improvement to add ſemi-tranſparent parts: which may be done by mixing whiting with ſome of the paſte to weaken its operation in particular places: by which ſpots of a reddiſh brown will be produced; that if properly interſperſed, eſpecially on the edges of the dark parts, will greatly increaſe as well the beauty of the work, as its ſimilitude with the real tortoiſe ſhell.

TO STAIN IVORY, BONE, AND HORN, BLACK.

Proceed in the ſame manner as is above directed for wood.

OF

Of ſtaining paper, or parchment, of various colours.

OF STAINING PAPER, OR PARCHMENT, YELLOW.

PAPER may be ſtained yellow by the tincture of French berries; but a much more beautiful colour may be obtained by uſing the tincture of turmeric, formed by infuſing an ounce or more of the root, of powdered, in a pint of ſpirit of wine. This may be made to give any teint of yellow, from the lighteſt ſtraw, to the full colour called French yellow; and will be equal in brightneſs even to the beſt dyed ſilks. If yellow be wanted of a warmer or redder caſt, annato, or dragon's blood, muſt be added to the tincture.

The beſt manner of uſing theſe, and the following tinctures, is to ſpread them even on the paper, or parchment, by means of a broad bruſh in the manner of varniſhing.

OF STAINING PAPER, OR PARCHMENT, RED.

Paper, or parchment, may be ſtained red by treating it in the ſame manner as is directed for wood, or by red ink. It may alſo be ſtained of a ſcarlet hue by the tincture of dragon's blood in ſpirit of wine; but this will not be bright.

A very

A very fine crimſon ſtain may be given to paper, by a tincture of the Indian lake; which may be made by infuſing the lake ſome days in ſpirit of wine; and then pouring off the tincture from the dregs.

OF STAINING PAPER, OR PARCHMENT, GREEN.

Paper, or parchment, may be ſtained green, by the ſolution of verdigriſe in vinegar; or by the chryſtals of verdigriſe diſſolved in water. As alſo by the ſolution of copper in aqua fortis, made by adding filings of copper gradually to the aqua fortis till no ebullition enſues; or ſpirit of ſalt may be uſed in the place of the aqua fortis.

OF STAINING PAPER, OR PARCHMENT, BLUE.

A blue colour may be given to paper, or parchment, by ſtaining it green by any of the abovementioned methods; and treating it afterwards as is directed for the ſtaining wood blue, by the ſame means; or by indico, in the manner there explained likewiſe.

OF STAINING PAPER, OR PARCHMENT, ORANGE.

Stain the paper, or parchment, firſt of a full yellow, by means of the tincture of turmeric as above directed. Then bruſh it over with a ſolution of fixt alkaline ſalt, made by diſſolving half an ounce of pearl aſhes, or ſalt of tartar, in a quart of water, and filtering the ſolution.

OF

OF STAINING PAPER, OR PARCHMENT, PURPLE.

Paper, or parchment, may be ſtained purple by archal; or by the tincture of logwood, according to the method above directed for ſtaining wood. The juice of ripe privet berries expreſſed will likewiſe give a purple dye to paper or parchment.

Of ſtaining alabaſter, marble, and other ſtones of various colours.

ALABASTER, marble, and other ſtones, may be ſtained of a yellow, red, green, blue, purple, black, or any of the compound colours, by the means above given for ſtaining wood; but it is better, when a ſtrong tinge is wanted, to pour the tincture, if made in water, boiling hot on the alabaſter, &c. ſpreading it equally on every part, than to bruſh it over only; though that may be ſufficient where a ſlighter dye will ſuffice. When tinctures in ſpirit of wine are uſed, they muſt not be heated, as the ſpirit would evaporate, and leave the tinging gums in an undiſſolved ſtate. Where ſtones are not perfectly white, but partake of brownneſs or greyneſs, the colour produced by the tinges will be proportionably

wanting in brightneſs; becauſe the natural colour of the ſtone is not hid or covered by theſe tinges; but combines with them: and, for the ſame reaſon, if the ſtone be of any of the pure colours, the reſult will be a compound of ſuch colour and that of the tinge.

FINIS.

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